WINTER TEMPERATURE DATA FROM FEDERAL WATER POLLUTION CONTROL ADMINISTRATION (GREAT LAKES - ILLINOIS RIVER BASINS PROJECT)

BUOY STATIONS

LAKE MICHIGAN: WINTERS OF 1962-63 AND 1963-64

LAKE HURON: WINTER OF 1965-66

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Research Supported by National Science Foundation Section on Atmospheric Sciences NSF GP-2411, and GA-524

Special Report No. 39 Great Lakes Research Division The University of Michigan Ann Arbor, Michigan 1968

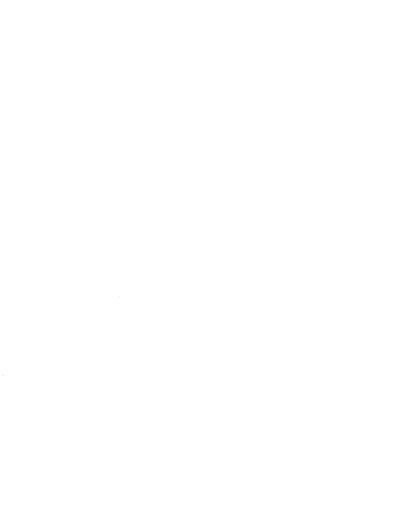


TABLE OF CONTENTS

INTRODUCTION	۰				-
LAKE MICHIGAN DATA Winter of 1962-63 Winter of 1963-64			:	:	82
LAKE HURON DATA Winter of 1965-66					340

INTRODUCTION

During the course of a previous study of the relation between the winter temperature structure of Lake Michigan and the ice cover on the lake, the winter temperatures were read from thermographs maintained at buoy stations in the lake by the Great Lakes-Illinois River Basins Project of the Federal Water Pollution Control Administration (formerly USPHS). Weekly average temperatures were computed for each of the thermograph records, and were reported by Heap and Noble. 1 This report considered the available winter data from Lake Michigan for the winter seasons of 1962-63 and 1963-64.

During a continuation program, which is currently in progress, the GLIRBP (FWPCA) data were obtained for Lake Huron for the winter season of 1965-66. At the conclusion of this second project (late in 1968) the weekly average temperatures from the stations in Lake Huron will be used in a consideration of the heat budget of Lake Huron.

The temperature recorders were a bourdon-tube-driven stylus scribing on a waxed chart paper. The temperature span was 0°C to 30°C on a 70-mm scale. The chart transport was a clock-driven motor that transported the paper in steps every 30 minutes. The time-base of the recording was a transport of 1/6 cm in 30 minutes. The overall accuracy of carefully calibrated temperature recorders appeared to be about $\pm 0.3^{\circ}$ C. All of the data were read to the nearest indicated 0.1° C, and appropriate temperature corrections were applied from the calibration marks put on the charts before the meters were set on station and again after they were removed from the water. Mechanical failure occurred at some of the recording levels, and some of the functioning meters did not have adequate calibration points. In each case, when uncalibrated instruments are used in the reduction of the data, the inclusion of such instruments is indicated.

For the purposes of this program, the temperature records were read as averages for 90-minute intervals. The time base of the temperature records was then corrected for individual variations in the speed of the several clock motors, and indicated calibration corrections were applied. Each buoy station had a temperature recorder at 10, 15, 22, 30, and 60 meters, and every subsequent 30-m level down to the bottom.

Heap, John A., and Vincent E. Noble. 1966. Growth of ice on Lake Michigan. Spec. Rep. No. 26, Great Lakes Res. Div., Univ. of Michigan. 94 p.

The data presented in this summary are the 90-minute readings from each of the thermographs from the GLIRBP buoy stations in Lake Michigan and Lake Huron. Ninety-six thermograph records have been reduced from Lake Michigan and fourteen from Lake Huron. Where possible, both time and temperature corrections are applied to the raw data. Where corrections could not be determined, the raw data are presented.

The information preceding the data summary for each thermograph record contains the following information: Lake, thermograph station number, and the instrument depth at the station; the starting and ending dates and times of the thermograph record; the instrument serial number and the film record number (an internal serial number designating the actual thermograph output); and the initial and final calibrations (the temperature correction terms determined by tests before and after the thermographs are placed on station). Where the thermograph remains constant, the temperature is given for the initial and final periods of the constant temperature interval. For example, the first temperature table on page 6 is interpreted to read as:

DATE	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30
TIME		10 10												
0130		2.8	3.1	3,1	3.5	2.6	2.1	2.4	2.8	2.1	2.2	1.1	1.2	1.3
0300		2.8	3.1	3.3	3.3	2.7	2.1	2,4	2.8	2.1	2.1	1.1	1.2	1.3
0430		2.8	3.1	3.5	3.1	2.7	2.1	2.6	2.5	2.1	2.0	1.1	1.2	1.3
0600		2.9	3.1	3.5	3.0	2.8	1.8	2.8	2.4	2.1	1.6	1.1	1.2	1.3
0730		2.8	3.1	3.5	2,9	2.9	1.8	2.8	2.4	2.1	1.5	1.1	1.1	1.3
0900		2.7	3.1	3.6	2,8	3.0	1.8	2.8	2.4	2.1	1.4	1.1	1.1	1.3
1030		2.7	3.1	3.6	2.7	3.1	1.8	2.8	2.5	2.1	1.4	1.1	1.1	1.3
1200		3,8	3.0	3.6	2.6	3.1	2.1	2.8	2.4	2.1	1.3	1.1	0.6	1.3
1330		3.9	2.9	3.6	2.5	2.7	2.4	2.8	2.3	2.1	1.3	1.2	0.6	1.3
1500		3.0	2.8	3.6	2.5	2,5	2.5	2.8	2.3	2.1	1.3	1.2	0.5	1.3
1630	3.3	3.0	2.8	3.6	2.6	2.3	2.5	2.8	2.2	2.1	1.3	1.1	0.5	1.3
1800	3.3	3.0	2.8	3.6	2.6	2,2	2.5	2.8	2.2	2.1	1.3	1.1	0.5	1.3
1930	3.3	3.0	2.8	3.6	2.6	2.1	2.5	2.8	2.1	2.2	1.3	1.1	0.6	1.3
2100	3,2	3.0	2.8	3.6	2.6	2.1	2.5	2.8	2.1	2.2	1.3	1.2	0.7	1.3
2230	3.1	3.0	2.8	3.6	2.6	2.1	2,4	2.8	2.1	2.2	1.3	1.2	1.0	1.3
2400	2.9	3.0	3.0	3.6	2.6	2.1	2.4	2.8	2,1	2.2	1.3	1.2	1.2	1.3

LAKE MICHIGAN DATA

Figure 1 shows the locations of the Great Lakes-Illinois River Basins Project buoy stations on Lake Michigan that have winter temperature data from the 1962-63 and the 1963-64 seasons. Stations 3, 4, 17, 18, 20, and 39 were occupied during the winter of 1962-63. Stations 3, 4, 5, 7, 8, 10, 12, 13, 15, 17, 18, 20, 27, 28, 30, 37, 38, and 40 were occupied during the winter season of 1963-64. Table 1 presents the station latitude, longitude, and water depth for each of the stations.

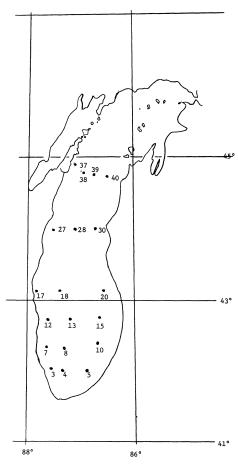


FIG. 1. U. S. Public Health Service temperature stations in Lake Michigan.

TABLE 1. Temperature recording stations, Lake Michigan.

tation	Latitude	Longitude	Depth
3	42°02.5'N	87°32.0'W	16 m
4	42°01.0'N	87°20.0'W	50 m
5	41°59.9'N	87°00.0'W	65 m
7	42°25.0'N	87°45.0'W	23 m
8	42°23.0'N	87°25.0'W	100 m
10	42°23.0'N	86°38.0'W	70 m
12	42°46.0'N	87°42.0'W	22 m
13	42°45.0'N	87°22.0'W	120 m
15	42°44.0'N	86°35.0'W	95 m
17	43°08.0'N	87°51.0'W	30 m
18	43°08.0'N	87°24.5'W	90 m
20	43°08.0'N	86°35.0'W	100 m
27	44°03.0'N	87°33.0'W	45 m
28	44°04.5'N	87°14.5'W	150 m
30	44°04.0'N	86°48.0'W	160 m
37	44°50.0'N	87°09.0'W	25 m
38	44°47.5'N	86°57.5'W	120 m
39	44°45.0'N	86°45.0'W	250 m
40	44°43.0'N	86°31.0'W	210 m

LAKE MICHIGAN - STATION 3. Depth 15 m. Start 17 December 1962, 1530 CST; end 22 March 1963, 1300 CST. Instrument serial no. 149, film record 20,004. No temperature correction.

DATE	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30
TIME 0130		2.8	3.1	3.1	3.5	2.6	2.1	2.4	2.8	2.1	2.2	1.1	1.2	1 2
0300		2.0	3.1	3.3	3.3	2.7	2.1	2,4	2.8	2.1	2.1	1.1	1.2	1.3
0430		2.8		3.5	3.1	2.7	2.1	2.6	2.5		2.0			
0600		2.9			3.0	2.8	1.8	2.8	2.4		1.6		1.2	
0730		2.8		3.5	2.9	2.9					1.5		1.1	
0900		2.7		3.6	2.8	3.0			2.4		1.4		1.1	
1030		2.7	3.1		2.7	3.1	1.8		2.5		1.4		1.1	
1200 1330		2.8	3.0 2.9		2.6	3.1 2.7	2.1		2.4		1.3	1.1 1.2	0.6	
1500		3.0	2.8		2.5	2.5	2.5		2.3			1.2	0,5	
1630	3.3	3.0	2.0		2.6	2.3	2.5		2.2			1.1	0,5	
1800						2.2			2.2	2.1			0.5	
1930	3.3					2.1			2.1	2,2		1.1	0.6	
2100	3.2						2.5					1.2	0.7	
2230	3.1	0.0	2.8	0 6	0 (2.4	0.0		0.0		1.0	1.0	1 0
2400	2.9	3.0	3.0	3.6	2,6	2.1	2.4	2.8	2.1	2.2	1.3	1.2	1.2	1.3
DATE	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13
TIME 0130	1.3	1.1	1.2	1,7	1.3	1.8	1.7	1.2	1.2	1.4	1.3	1.5	1.3	0.7
0300	1.5	1.1	1.1	1.7	1.5	1.7	1.,	1.2	1.2	1.4	1,5	1.5	1.3	0.7
0430			1.1	1.9		1.8							1,2	
0600			1.2	2.1		1.7				1.4				
07.30		1.1	1.2	2.2						1.3		1.5		0.7
0900		1.0	1.3	2.2						1.2		1.4		0.6
1030 1200		1.0		2.3			1.7					1.4		
1330		1.1		2.3			1.8		1.2		1.3	1.3		
1500			1.3	1.6					1.4	1.2	1.4			
1630			1.4	1.4			1.8			1.3	1.4		1.2	
1800			1.4	1.3		1.7	1.9				1.6		1.0	
1930	1 0		1.6	1.2	1 0	1.8	2.0				1.6 1.5		0.9	
2100 2230	1.3 1.2	1.1	1.6	1.2	1.3 1.5	1.8	1.9 1.6				1.3		0.7	
2400	1.2	1.2	1.7	1.3	1.7	1.7	1.5	1.2	1.4	1.3	1.5	1.3	0.7	0.6
DATE	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27
TIME														
0130	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0,3	0.4	0.5	0.5	0.5	0.5
0300														
0430 0600														
0730			0.4											
0900			0.3											
1030														
1200														0.5
1330														0.4
1500 1630										0.4				
1800										0.5				
1930														
2100	0.5													
2230	0.4													0.1
2400	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.5	0.5	0.5	0,4

LAKE MICHIGAN, STATION 3, 15 m continued.

DATE	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10
TIME 0130 0300 0430 0600	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.4	0.3 0.3 0.2	0.0	0.0	0.1
0730 0900 1030 1200 1330					0.3 0.4					0.4	0.2			
1500 1630 1800 1930									0.5		0.2		0.0 0.1	
2100 2230	0.4								0.4					
2400 DATE	0.3 2-11	0.3 2-12	0.3 2-13	0.3 2-14	0.4 2-15	0.4 2-16	0.5 2-17	0.5 2-18	0.4 2-19	0.3 2-20	0.1 2-21	0.0 2-22	0.1 2-23	0.1 2-24
TIME 0130	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3
0300 0430 0600 0730 0900		0.1 0.2												
1030 1200 1330 1500 1630											0.1	0.2 0.3		
1800 1930 2100 2230						0.2 0.1								
2400	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3
DATE TIME	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10
0130 0300	0.3	0.2	0.1	0.0	0.0	0.0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
0430 0600 0730 0900						0.0	0.2							
1030 1200 1330						0								
1500 1630 1800			0.1 0.0			0.1								
1930 2100 2230	0.3					0.1								
2400	0.2	0.2	0.0	0.0	0.0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3

LAKE MICHIGAN, STATION 3, 15 m continued.

TIME 0130 0.3 0.3 0.4 0.4 0.5 0.6 1.1 1.2 0300 0.3 0.3 0.4 0.5 0.6 0430 0.70 0.7 0600 0730 0.3 1.1 0900 0.4 1.2 1030 1200 0.5 0.7 1330 0.6 0.8 1.2 1500 0.9 End of record	3-24
0300	
0430 0.7 0600 0.7 0730 0.3 1.1 0900 0.4 1.2 1030 1200 0.5 0.7 1330 0.6 0.8 1.2 1500 0.9 End of record	
0600 0730 0.3 1.1 0900 0.4 1.2 1030 1200 0.5 0.7 1330 0.6 0.8 1.2 1500 0.9 1630 1.0 End of record	
0730 0.3 1.1 0900 0.4 1.2 1030 1200 0.5 0.7 1330 0.6 0.8 1.2 1500 0.9 End of record	
1030 1200 0,5 0,7 1330 0,6 0,8 1,2 1500 0,9 End of record	
1200 0,5 0,7 1330 0,6 0,8 1,2 1500 0,9 End of 1630 1.0 record	
1330 0.6 0.8 1.2 1500 0.9 End of 1630 1.0 record	
1500 0.9 End of 1800 record	
1630 1.0 End of record	
1800 record	
1930	
2100	
2230 1.0	
2400 0.3 0.4 0.4 0.5 0.6 1.1 1.2	

LAKE MICHIGAN - STATION 4. Depth 10 m. Start 18 December 1962, 0815 CST; end 22 March 1963, 1550 CST. Instrument serial no. 151, film record 20,008. No temperature correction.

DATE	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31
TIME														
0130		5.4	5.3	5.1	4.6	4.9	4.8	4.6	4.3	4.2	4.0	3.8	3.8	3.8
0300				5.1			4.7		4.3	4.2			3.8	
0430				5.0			4.6		4.2	4.1			3.9	
0600				5.0	4.6		4.6							
0730				4.9	4.7		4.5							3.8
0900			5.3	4.8	4.7	4.9								3.7
1030	5.3		5.2		4.8	5.0								
1200				4.8	4.9	5.0								
1330				4.9		4.9		4.6						3.7
1500								4.5						3.6
1630				4.9			4.5							
1.800				4.8			4.6	4.5						
1930				4.8				4.4						
2100				4.7		4.9		4.3			4.0			
2230		5.4	5.2	4.6		4.8					3,9			
2400	5.3	5.3	5.1	4.6	4.9	4.8	4.6	4.3	4.2	4.1	3.8	3.8	3.9	3.6

DATE	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14
TIME 0130 0300	3.6 3.4	2.8 3.0	2.6	2.3	1.9	1.4 1.5	2.0	3.0	2.6	2.0	2.0	2.0	1.2	1.1 1.2
0430 0600	3.3	2.7	2.6 2.4	2.3	1.9	1.6 1.6	2.2	2.8	2.2		2.0	2.3	1.2	1.2 1.3
0730 0900	3.3	2.4	2.4	2.1	2.0	1.8 1.9	2.2		2.7 2.1	2.0	2.1	2.4	1.0	1.3
1030 1200	3.0 3.1	2.7	2.7	2.0		1.7	2.4		2.0	2.2	2.2	1.8	0.9 1.0	1.4
1330 1500 1630	3.0 3.1 3.1	2.4 2.5 2.8	2.2 2.2 2.0	2.1	2.0	1.7 1.8	2.6 2.7 2.8	2.6		2.2 2.3 2.2	2.6 2.6 2.5	1.6 1.5 1.4		1.6 1.5 1.4
1800 1930	3.2	2.6	2.0	2.2	1.9	1.9	2.8	2.8		2.2	2.3	1.2		1.3
2100 2230	2.9	2.4	2.0	2.1	1.5 1.3		3.0	2.7	2.0	2.1	2.0		1.0 1.1	1.3
2400 DATE	2.7 1-15	2.5 1-16	2.2 1-17	1.9 1-18	1.3 1-19	2.0 1-20	3.0 1-21	2.7 1-22	2.1 1-23	2.0 1-24	2.0 1-25	1.2 1-26	1.1 1-27	1.2 1-28
TIME 0130	1.2	0.8	1.0	0.9	0.8	1.1	0.8	0.6	0.4	0.3	0.4	0.3	0.3	0.3
0300	1.2	0.7	1.0		0.0	1.0	0.8		0.4	0.5	0.4	0.5	0.5	0.5
0430 0600	1.1	0.7		0.9			0.7	0.6 0.5			0.4			
0730 0900	1.0	0.8		0.8	0.8	1.0	0.7				0.3			
1030 1200 1330	0.9 0.8 0.7	1.0		0.7 0.7 0.8	0.8	0.9	0.7 0.6	0.5						
1500 1630	0.7			0.0	0.8	0.9		0.4	0.4	0.0				
1800 1930	0.7		1.0		1.0				0.3	0.3				
2100 2230	0.8		0.9			0.9								
2400	0.8	1.0	0.8	0.8	1.0	0.8	0.6	0.4	0.3	0.4	0.3	0.3	0.3	0.3
DATE	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11
0130 0300 0430	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.0
0600 0730		0.3												
0900 1030							0.1							
1200 1330						0.1	0.2							
1500 1630						0.0					0.2			
1800 1930		0.2 0.1				0.1							0.1	
2100 2230 2400	0.3	0.1	0.1	0.1		0.1	0.0	0.1					0.0	
2400	0.5	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.0	0.0

DATE	2-12	2-13	2-14	2-15	2-16	2-17	0.10	0.10	0.00	0.01				
TIME	2-12	2-13	2-14	2-13	2-16	2-1/	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25
0130	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1
0300														
0430 0600		0.1			0.0									
0730		0.0			0.1									
0900														
1030														
1200 1330											0.0			
1500	0.0		0.0								0.1			
1630	0.1		0.1											
1800														
1930														
2100 2230					0.1					0.0	0.1			
2400	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1
DATE	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11
TIME					<u> </u>			<u> </u>		J-7	3-0	3-9	3-10	3-11
0130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.3	0.2
0300 0430														
0600														0.2
0730														0.3
0900								0.2					0.3	
1030 1200								0.1		0.1			0.2	
1330										0.2				
1500														
1630														
1800 1930							0.1							
2100							0.1					0.2		
2230							• • •					0.5		
2400	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.3	0.2	0.3
DATE	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	2-23	3-24	3-25
TIME 0130	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.5	0.7					
0300	0.2	0.2	0.2	0.2	0.5	0.5	0.5	0.5	0.7					
0430														
0600									0.7					
0730 0900							0.3		0.6					
1030							0.4							
1200								0.5						
1330								0.6						
1500 1630				0.2					0.6					
1800				0.3										
1930							0.4		Film	torn o	ff			
2100							0.5	0.6						
2230 2400	0.2	0.2	0.2	0.3	0.3	0.3	0.5	0.7						
2400	0.2	0.2	0.2	0.5	0.5	0.5	ر . ن	0.7						

LAKE MICHIGAN - STATION 4. Depth 15 m. Start 18 December 1962, 0815 CST; end 22 March 1963, 1550 CST. Instrument serial no. 153, film record 20,009. No temperature correction.

DATE	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31
TIME 0130		5.3	5.2	4.9	4.7	4.7	4.6	4.5	4.4	4.3	4.2	4.0	3.9	3.9
0300		3,3		4.9						.,5				,
0430 0600				4.9 4.8				4.5						
0730			5.2	7.0				4.6	4.4	4.3				3.9
0900	4.9		5.1				, ,		4.3	4.2				3.8
1030 1200	5.0					4.7	4.6 4.5					4.0		
1330		5.3				4.6					4.2	3.9		
1500 1630	5.0 5.2	5.2		4.8 4.7							4.1			3.8
1800	5.3		5.1	4.7										3.7
1930			5.0					4.6						
2100 2230								4.5 4.5			4.1			
2400	5.3	5.2	5.0	4.7	4.7	4.6	4.5	4.4	4.3	4.2	4.0	3.9	3.9	3.7
DATE	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14
TIME 0130	3.7	3.5	2.6	2.4	2.5	2.2	1.9	2.5	2.6	2.3	2.3	2.5	1.7	1.0
0300			2.5	2.4		2.1	1.9					2.4	1.7	_,.
0430 0600			2.7	2.3		2.0	2.1		2,6	2.3		2.3	1.6 1.4	
0730	3.7	3.5	2.6	2.4				2.5	2.7	2.2		2.2	1.3	
0900	3.6	3.4	2.6	2.5	2.5			2.6	2.7		2.3	2.0		
1030 1200	3.5	3.2 2.8	2.5		2.4	2.0	2.1		2.6		2.2			
1330		2.8	2.6		2.4	2.1	2.3	2.6	2.6		2.0	2.0		
1500 1630		2.9 2.8	2.7 2.7	2.5		2.1		2.4	2.5			2.1		
1800		2.8	2.6	2.3	2.4	2.0		2.4	2.4	2.2		2.3		
1930		2.9	2.6		2.3		2.3	2.7	2.3	2.3	2.0	2.3	1.3	
2100 2230		2.7	2.5	2.3		2.0 1.9	2.4	2.7			2.2	2.1 1.9	1.2 1.1	1.0
2400	3.5	2.6	2.5	2.5	2.3	1.9	2.5	2.6	2.3	2.3	2.4	1.8	1.0	1.1
DATE	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28
TIME 0130	1.2	0.7	1.0	0.9	0.6	0.7	0.7	0.5	0.4	0.4	0.4	0.3	0.2	0.2
0300	1.2		1.0								- • •	•••		•••
0430 0600	1.3		1.1	0.9					0.4					
0730	1.3		1.0	1.0	0.6		0.7		0.3				0.2	
0900			1.0		0.7		0.6						0.3	
1030 1200			0.9	1.0 0.8		0.7 0.8			0.3	0.4				
1330	1.3			0.7		0.9			0.4	0.5			0.3	
1500 1630	1.2					0.9	0.6				0 /	0.2	0.2	
1800	1.1					0.0	0.6				0.4	0.3		
1930	1.0						0.5							
2100 2230	1.0 0.9	0.7		0.7			0.6			0.3				0.2
2400	0.8	0.9	0.9	0.6	0.7	0.8	0.5	0.5	0.4	0.4	0.3	0.2	0.2	0.1

DATE	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11
TIME 0130 0300 0430 0600	0.1 0.1 0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2 0.2 0.1	0.1	0.1	0.2	0.1 0.2	0.0	0.0
0730 0900 1030 1200 1330 1550 1630 1800 1930 2100	0.2			0.1 0.2						0.1	0.2	0.2 0.1 0.1 0.0	0.0 0.2 0.2 0.1 0.1	
2230 2400	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.0	0.0	0.0
DATE	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25
TIME 0130 0300	0.0	0.1	0.1	0.2	0.2	0.1	0.0	0.0	0.0	0.0 0.1	0.1	0.2	0.1	0.1
0430 0600 0730 0900 1030 1200 1330 1500 1630	0.0	0.1	0.1 0.2		0.2	0.1					0.1			
1800 1930 2100 2230 2400	0.1 2-26	0.2 0.1 2-27	0.2 2-28	0.2 3-1	0.1 3-2	0.0 3-3	0.0	0.0	0.0	0.1 3-7	0.2 3-8	0.2 0.1 0.1 3-9	0.1 3-10	0.1 0.0 3-11
TIME					0.2		0.2	0.2	0.2	0.2	0.2		0.2	0.2
0130 0300 0430 0600 0730 0900 1030	0.0	0.0	0.0	0.1 0.1 0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
1200 1330 1500 1630 1800 1930 2100			0.0 0.1											0.2
2230 2400	0.0	0.0	0.1	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3

LAKE MICHIGAN, STATION 4, 15 m continued.

DATE	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25
TIME														
0130	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3			
0300									0.3					
0430									0.4					
0600								0.3						
0730								0.4			0.3			
0900											End o	£		
1030											recor			
1200											TECOL	u		
1330														
1500								0.4						
1630								0.3		0.4				
1800										0.3				
1930														
2100														
2230										0.3				
2400	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3				

LAKE MICHIGAN - STATION 4. Depth 22 m. Start 18 December 1962, 0815 CST; end 22 March 1963, 1550 CST. Instrument serial no. 152, film record 20,010. No temperature correction.

DATE	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31
TIME														
0130		5.0	5.0	5.0	4.9	4.9	4.9	4.9	4.5	4.3	4.2	4.1	4.0	4.0
0300									4.4					
0430									4.3					
0600														
0730														
0900	4.5			5.0										
1030				4.9										
1200														
1330								4.9						
1500	4.5							4.8						4.0
1630	5.0							4.8						3.9
1800								4.7		4.3		4.1		3.8
1930								4.6		4.2	4.2	4.0		3.7
2100								4.5			4.1			
2230														
2400	5.0	5.0	5.0	4.9	4.9	4.9	4.9	4.5	4.3	4.2	4.1	4.0	4.0	3.7

LAKE MICHIGAN, STATION 4, 22 m continued.

DATE	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14
TIME 0130 0300	3.7	3.6	3.2	3.2	3.2	2.8	2.8	2.7	2.7	2.3	2.2	2.1	1.5	1.4
0430 0600 0730 0900 1030	3.7	3.6 3.5 3.3						2.7 2.8			2.2 2.1		1.5 1.4	
1200 1330 1500 1630 1800 1930 2100	3.6	3.3 3.2		3.2 3.1	3.2 3.1 3.1 3.0 2.9 2.8		2.8 2.7	2.8 2.7	2.7			2.1 2.0 1.8 1.7 1.6 1.5		1.4 1.3
2230 2400	3.6	3.2	3.2	3.1	2.8	2.8	2.7	2.7	2.6	2.3	2.1	1.5	1.4	1.3
DATE	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28
TIME 0130 0300	1.3	0.9	1.2	1,2	1.1	1.1	1.0	0.6	0.3	0.2	0.2	0.2	0.2	0.2
0430 0600 0730 0900 1030	1.3 1.2	0.9				1.1 1.0	1.0 0.9 0.8 0.8	0.6 0.5 0.4						
1200 1330 1500 1630 1800 1930 2100	1.2 1.1 1.0 0.9 0.8 0.9	1.0 1.1 1.1 1.2		1.2 1.1			0.7 0.7 0.6	0.4	0.3 0.2					
2230 2400	0.9	1.2	1.2	1.1	1.1	1.0	0.6	0.3	0.2	0.2	0.2	0.2	0.2	0.2
DATE TIME	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11
0130 0300 0430 0600 0730 0900	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0
1030 1200 1330 1500 1630 1800 1930												0.1		
2100 2230 2400	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2 0.1 0.1	0.1	0.0	0.0	0.0

DATE	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25
TIME 0130	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0
0300 0430														
0600														
0730		0.0												
0900 1030		0.1									0.1			
1200											0.0			
1330										0.2				
1500										0.1				
1630 1800														
1930														
2100			0.1											
2230 2400	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0
DATE	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11
TIME													<u> </u>	
0130	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1
0300 0430														
0600			0.1				0.1				0.1			
0730			0.0				0.2				0.2			
0900 1030						0.1								
1200						0.2								
1330														
1500		0.0												
1630 1800		0.1		0.0		0.0					0.0			
1930				0.1		0.1					0.1			
2100										0.2				
2230 2400	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
DATE	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25
TIME	3-12	3-13	3-14	3-13	3-10	3-1/	2-10	3-19	3-20	3-21	3-22	3-23	3-24	3-23
0130	0.1	0.2	0.2	0.2										
0300 0430														
0600														
0730	0.1													
0900	0.2													
1030 1200														
1330				0.2										
1500					d torn	off								
1630				Necol	a corn	OII								
1800 1930														
2100														
2230														
2400	0.2	0.2	0.2											

LAKE MICHIGAN - STATION 17. Depth 10 m. Start 1 December 1962, 1135 CST; end 19 April 1963, 1200 CST. Instrument serial no. 104, film record 20,091. No temperature correction.

DATE TIME	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14
0130		7.4	6.7	6.5	6.3	6.2	5.6	4.6	3.5	4.5	4.1	2.5	1.7	2.0
0300					6.2	6.2	5.4	4.5	3.7		4.4	2.4		1.9
0430					6.1	6.0	5.3	4.4	4.7		4.4	2.3		1.8
0600		7.4				6.0	5.1	4.3	5.0		4.0	2.1	1.7	1.7
0730		7.3	6.7		6.1	6.1	4.9		5.1	4.5	3.9	2.0	1.6	1.6
0900		7.3	6.5		6.2	6.1	4.8		4.9	4.2		1.9	1.6	1.5
1030		7.2				5.8	4.9		4.6	3.8		1.8	1.7	
1200	7.4	7.1				5.6		4.3	5.1	3.7	3.9			
1330	6.7	7.0				5.9		4.4	4.5	3.8	3.6		1.7	
1500		6.9		6.5		5.8	4.9		3.8	3.7	3.5	1.8	1.9	
1630		6.9		6.4		5.8	4.8		4.6	3.5		1.9		
1800		6.8	6.5	6.4		6.1	4.8		4.6		3.5	1.9	1.9	
1930	6.7		6.6	6.3		6.0	4.7		4.5	3.5	3.4	2.0	2.0	
2100	7.0	6.8	6.6			5.9	4.7	4.4		3.8	3.2	2.0		
2230	7.2	6.7	6.5			5.8	4.6	3.9	4.5	4.2	3.0	1.9		
2400	7.3	6.7	6.5	6.3	6.2	5.6	4.6	3.5	4.4	4.1	2.7	1.7	2.0	1.5
DATE TIME	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28
0130	1.5	2.0	2.3	2.3	2.7	1.8	2.5	2.2	2.0	2.0	1.8	2.9	2.4	2.0
0300	1.5	2.0	2.5	2.2	2.5	1.9	2.5	2.1	1.9	2.2	2.1	2.9	2.3	2.0
0430	1.6			2.1	2.3	2.1		2.0	1.8	2.2	2.4		2.3	1.9
0600	1.7				1.8	2.3		2.0	1.0		2.6	2.9		1.8
0730	,		2.3		1.6	2.4	2.5	1.9		2.2	2.8	2.8		1.8
0900			2.4	2.1	2.0		2.4			2.1	3.0	2.8	2.3	2.0
1030	1.7		2.5	2.2					1.8	2.2	3.2	2.7	2.2	2.2
1200	1.8			2.3		2.4			1.9	2.0	3.1	2.7	2.1	2.1
1330	1.9			2.5		2.5						2.6	2.0	1.9
1500				2.6										2.0
1630				2.3						2.0	3.1		2.0	
1800	1.9	2.0		2.2				1.9		1.9	3.0		1.9	
1930	2.0	2.1	2.5	2.1			2.4	2.0		1.6		2.6	2.0	
2100		2.2	2.4	2.3	1.6		2.3		1.9	1.6		2.5		
2230		2.2	2.4	2.6	1.7				2.0	1.7		2.4		
2400	2.0	2.3	2.3	2.7	1.8	2.5	2.3	2.0	2.0	1.8	3.0	2.5	2.0	2,0
DATE	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11
TIME 0130	2.0	1.8	1.8	1.5	2.4	3.0	2.8	2.5	1.6	2.4	2.4	2.0	2.5	2.4
0300	1.9	1.0	1.0	1.5		3.0	2.7	2.4	1.0	2.4	2.4	2.2	2.4	2,4
0430	1.9			1.4	2.5		2.6	2.3				2.4	2.4	
0600			1.8	1.5	2.5		2.5	2.2				2.4		2.4
0730	1.9		1.7	1.4	2.6		2.5	2.0				2.4		2.5
0900	1.7		1.7	1.9	2.7			1.8	1.6					2,5
1030	1.,	1.8	1.6	2.3	2.8			1.6	1.7				2.4	
1200		1.9	1.6	2.5	3.0		2.5	1.5	1.9				2.2	
1330	1.7		1.5	2.7	3.3		2.4				2.4		2.0	2.5
1500	1.8					3.0	2.5				2.3		2.1	2.4
1630				2.7		2.9					2.2		2.2	2.5
1800				2.5					1.9		2.2		2.4	
1930				2.1					2.3		2.1		2.5	
2100		1.9		2.5	3.3				2.4		2.1			2.5
2230		1.8		2.3	3.1	2.9					2.2			2.4
2400	1.8	1.8	1.5	2.4	3.0	2.8	2.5	1.5	2.4	2.4	2.0	2.5	2.5	2.4

LAKE MICHIGAN, STATION 17, 10 m continued.

DATE	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25
TIME														
0130	2.4	1.4	1.4	1.2	0.5	0.3	1.0	1.2	0.5	0.4	0.3	0.2	0.0	0.0
0300	2.3	1.3		0.8	0.4		1.2	1.1						
0430	2.2	1.2		0.7	0.4	1.3	1.6	0.9						
0600	2.1		1.4		0.5	1.1	1.5	0.8				0.2		
0730	2.0		1.3	0.7		0.9	1.4	0.7				0.1		
0900		1.2	1.2	0.6		0.8	1.3	0.6						
1030	2.0	1.3	1.1	0.5		0.7		0.5	0.5					
1200	2.0	1 0			0 5	0.6		0.5	0.4					
1330 1500	1.9 1.8	1.3	1.1		0.5	0.5		0.7	0.4			0.1		
1630	1.7	1.4	1.2		0.0	0.5		0.7	0.4	0.4		0.0		
1800	1.6		1.3		0.8	0.4		0.6	0.5	0.3		0.0		
1930	1.5		1.3		0.9	0.4		0.5	0.5	0.5	0.3			
2100	1.5				1.0	0.5	1.3	0,5			0.2			
2230	1.5				1.2	0.5	1.2							
2400	1.4	1.4	1.3	0.5	1.3	0.8	1.2	0.5	0.5	0.3	0.2	0.0	0.0	0.0
DATE	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8
TIME														
0130	0.0	0.1	0.0	0.0	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.3
0300								0.1	0.2					
0430										0 1				
0600 0730				0.0				0.0	0.1	0.1	0.2			0.3
0900	0.0			0.2						0.0	0.1			0.2
1030	0.1			0.2	0.2						0.1		0.1	0.2
1200	0.1				0.1		0.1						0.2	
1330				0.2	0.1		0.2			0.0			0.2	
1500				0.3			0.2			0.1			0.2	
1630		0.1		0.2				0.0		0.1			0.3	
1800		0.0					0.2	0.1		0.1			- 10	0.2
1930							0.1	0.2		0.2				0.1
2100														
2230										0.2				
2400	0.1	0.0	0.0	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.3	0.1
DATE	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22
TIME														
0130	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0300														
0430														
0600														
0730 0900														
1030														
1200														
1330	0.1													
1500	0.0													
1630	0.0													
1800														
1930														
2100														
2230														
2400	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DATE	2-23	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8
TIME														
0130 0300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2
0430														
0600														
0730														
0900 1030							0.0							
1200							•••							
1330									0.1					
1500 1630									0.2					
1800														
1930														
2100 2230														
2400	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2 °	0.2	0.2
DATE	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
TIME 0130	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
0300	0.1			0.2	0.2				0.2		0.2		***	
0430 0600			0.2	0.1	0.1	0 0			0.1	0.2	0.1			
0730			0.1			0.2 0.1				0.1		0.1		
0900												0.0		
1030			0.1							0.1				
1200 1330			0.1	0.1		0.1				0.1				
1500		0.1		0.2	0.1	0.2	0.2					0.0		0.1
1630		0.2			0.2		0.3					0.1		0.2
1800 1930							0.3		0.1					
2100							0.2		0.2					
2230							0 0	0.0	0 0	0 0				
2400	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2
DATE TIME	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5
0130	0.2	0.2	0.6	0.5	0.8	0.7	0.6	1.1	1.3	1.3	1.5	1.0	2.5	1,8
0300 0430	0.1				0.8 0.7	0.7 0.8	0.9 1.0	1.1 1.0	1.3 1.2	1.3 1.2	1.5 1.4	0.9	2.5	1.7 1.5
0600				0.5	0.7	1.2	1.1	0.9	1.2	1.3	1.4		2.4	1.4
0730			0.6	0.4		1.2	1.1		1.2	1.3	1.5		1.8	1.3
0900			0.5	0.4		0.8	1.0		1.3 1.4	1.4 1.4	1.6		1.6	
1030 1200		0.2		0.3	0.7	0.7 0.6	1.0	0.9	1.5	1.5	1.6 1.5	0.9	1.4	
1330		0.3		0.4	0.8	0.7	1.1	1.0	1.4		-	1.1	1.7	1.3
1500 1630	0.1	0.3		0.4			$\frac{1.2}{1.2}$	1.0 1.1	1.4 1.3			1.1 1.2	1.6 1.5	1.4 1.5
1800	0.2	0.3		0.4			1.3	1.1	1.3		1.5	1.5	1.4	1.6
1930	0.2	0.5		0.7							1.3	1.6	1.3	1.7
2100 2230	0.3	0.5		0.8		0.7 0.6	1.3 1.2	1.1			1.2 1.1	2.1	1.3	1.8 1.8
2400	0.2	0.6	0.5	0.8	0.8	0.6	1.1	1.2	1.3	1.5	1.0	2.5	1.4	1.9

LAKE MICHIGAN, STATION 17, 10 m continued.

DATE	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19
TIME														
0130	1.9	1.2	2.0	2.0	1.8	2.2	1.7	2.1	2.1	2.2	2.5	3.1	2.9	3.4
0300				1.9	1.7	2.2	1.6	1.9			2.4	3.2		3.5
0430				1.9		1.9		1.8	2.1		2.3	3.3		3.5
0600	1.9		2.0	1.8	1.7	1.8		1.7	2.2		2.3	3.4		3.6
0730	1.8	1.2	1.9	1.7	1.6	1.8					2.5	3.6		3.7
0900	1.6	1.3			1.5	1.9					2.5	3.7	2.9	3.8
1030	1.5	1.4	1.9	1.7		2.2		1.7			2.3	3.7	3.0	
1200		1.5	2.2	1.5	1.5	2.2	1.6	1.8			2.4	3.9	3.0	3.8
1330		1.6	2.7		1.6	2.4	1.7	2.0		2.2	2.5	4.1	3.1	End
1550	1.5	1.7	3.0	1.5	1.7	2.0	1.7	2.1		2.3	2.6	4.2		
1630	1.6	1.8	3.2	1.8	1.8	1.8	1.8			2.4	2.8	4.0		
1800	1.5	1.8	3.3	2.1	1.8	1.7					3.0	3.6	3.1	
1930	1.4	1.9	2.3			1.7	1.8				3.0	3.2	3.2	
2100	1.2	2.0	2.2	2.1		1.6	1.9			2.4	2.9	3.3	3.2	
2230			2.1	1.9	1.8		2.0			2.3	2.8	3.0	3.3	
2400	1.2	2.0	2.0	1.8	2.0	1.6	2.1	2.1	2.2	2.3	2.9	2.8	3.3	

LAKE MICHIGAN - STATION 18. Depth 10 m. Start 29 November 1962, 1650 CST; end 20 April 1963, 1000 CST.

2400 5.9

6.0 6.1 6.3 6.2 6.1

Instrument serial no. 119, film record 20,096. Initial cal. 0°C; final cal. none.

DATE 11-29 11-30 12-1 12-2 12-3 12-4 12-5 12-6 12-7 12-8 12-9 12-10 12-11 12-12 TIME 0130 5.9 6.0 6.1 6.3 6.2 6.1 5.9 5.8 5.7 5.5 5.5 5.2 0300 5.9 6.2 6.1 5.8 5.7 5.5 5.7 0430 6.0 5.9 5.6 5.5 5.4 5.2 0600 5.8 5.5 5.6 5.1 0730 5.4 0900 5.3 5.1 1030 5.0 1200 6.1 1330 6.2 6.2 6.0 1500 6.3 6.3 5.9 5.3 1630 5.9 5.2 1800 5.9 6.0 5.9 6.2 1930 6.0 6.2 2100 6.3 6.2 2230 6.0 6.2 6.1 5.6 5.0

5.7 5.5 5.5 5.5

4.6

LAKE MICHIGAN, STATION 18, 10 m continued.

DATE TIME	12-13	12-14	12-15	12-16	12-17	12-18	12-1 9	12-20	12-21	12-22	12-23	12-24	12-25	12-26
0130 0300 0430 0600	5.1 5.0 5.0	4.6	4.6	4.5	4.5	4.5	4.6	4.5	4.5	4.4	4.4 4.3	4.2 4.2 4.3	4.3	4.3
0730 0900 1030 1200	4.9 4.8 4.9 4.8	4.6 4.7								4.4 4.3			4.3	4.3 4.2
1330 1500 1630 1800	4.7 4.8 4.7						4.6 4.7 4.7			4.3 4.4			4.4	4.2
1930 2100 2230		4.7 4.6					4.6				4.3 4.2 4.2		4.3	4.1
2400	4.7	4.6	4.6	4.5	4.5	4.5	4.6	4.5	4.5	4.4	4.2	4.3	4.3	4.1
DATE	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9
0130 0300 0430	4.1	4.0 3.9 3.8	3.6	3.5	3.4	3.3	3.3	3.5	3.5	3.5	3.5	3.5	3.5 3.5 3.4	3.4
0600 0730 0900 1030	4.1 4.0	3.8 3.7		3.5 3.4	3.3		3.3 3.4						3.4 3.5	
1200 1330 1500 1630			3.6 3.5										•••	
1800 1930 2100 2230		3.7 3.6					3.4 3.5						3.5 3.4	
2400	4.0	3.6	3.5	3.4	3.3	3.3	3.5	3.5	3.5	3.5	3.5	3.5	3.4	3.4
DATE	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23
0130 0300 0430 0600 0730	3.4	3.3	3.1	3.0	3.0 3.0 3.1	3.0 3.0 2.9	2.8	2.7	2.7 2.7 2.6	2.5	2.6 2.6 2.5	2.1 2.1 2.0 1.9	1.9 2.0	1.8
0900 1030 1200 1330 1500		3.3 3.2	3.1 3.0	3.0 3.1 3.1 3.0			2.8 2.7			2.5	2.5 2.4 2.4 2.3	1.9 1.8	2.0 1.9	
1630 1800 1930 2100	3.4	3.2		•	3.1 3.0	2.9 2.8			2.6 2.6 2.6	2.6 2.5 2.6	2.3		1.9	1.8 1.7
2230 2400	3.3	3.1 3.1	3.0	3.0	3.0	2.8	2.7	2.7	2.5	2.6	2.2	1.8 1.9	1.8	1.7

DATE	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6
TIME 0130 0300	1.6	1.5	1.4	1.2	1.2	1,2	1.1	0.9 0.9 0.8	0.6	0.7 0.7 0.6	0.5	0.5	0.7	0.7
0430 0600 0730 0900	1.5	1.5 1.4	1.4 1.3 1.2			1.2 1.1		0.7	0.6	0.5			0.7 0.6	0.7 0.8
1030 1200 1330				1.2 1.3				0.7 0.6	0.5		0.5 0.6			
1500 1630 1800 1930		1.4 1.5		1.3			1.1 1.0			0.6 0.5	0.6 0.5	0.5 0.6		
2100 2230 2400	1.5	1.5 1.4 1.4	1.2	1.3	1.2	1.1	1.0	0.6 0.5 0.6	0.5 0.6 0.7	0.5	0.5	0.6	0.6	0.8 0.7 0.7
DATE TIME	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20
0130 0300 0430 0600	0.7 0.6	0.7 0.7 0.6 0.5	0.3	0.4	0.3 0.3 0.4	0.4	0.3 0.2	0.3 0.3 0.2	0.3	0.2 0.1 0.2	0.2	0.1	0.2	0.1
0730 0900 1030 1200 1330	0.6	0.5 0.4					0.2 0.3			0.2 0.1 0.0 0.1		0.1		
1500 1630 1800	0.7						0.5	0.2				V.2		0.1
1930 2100 2230		0.4	0.3							0.1	0.2 0.1		0.2	0.2
2400	0.7	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.1	0.2	0.1	0.1
DATE TIME	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6
0130 0300 0430	0.1	0.0	0.1 0.1 0.0	0.0	0.0 0.0 0.1	0.1	0.1	0.1 0.1 0.0	0.1	0.0	0.0	0.0	0.1	0.0
0600 0730 0900 1030	0.1	0.0 0.1											0.1	0.0 0.1
1200 1330 1500 1630					0.1			0.0 0.1	0.1			0.0 0.1		
1800 1930 2100 2230					0.0									0.1
2400	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0

DATE	3-7	3-8	3- 9	3-10	3-11	3-12	3-13	3-14	3-1 5	3-16	3-17	3-18	3 -1 9	3-20
0130 0300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
0430 0600													0.0	
0730													0.1	
0900 1030														
1200														0.1
1330														0.0
1500 1630														0.1
1800										0.0				
1930 2100										$0.1 \\ 0.1$				0.1
2230										0.0				0.0
2400	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
DATE	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3
TIME 0130	0.0	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4
0300				0.2										
0430 0600														
0730														
0900 1030		0.1				0.2								0 /
1200		0.1			0.2	0.1								0.4
1330					0.3									0.4
1500 1630														
1800								0.2					0.3	
1930 2100					0.3	0.1		0.3		0.2			0.4	
2230	0.0				0.2	0.2		0.3	0.2	0.3				
2400	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4
DATE TIME	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17
0130 0300	0.4	0.5	0.4	0.4	0.5	0.5	0.6	0.7	0.6	0.7	0.7	0.7	0.9	1.0
0430		0.5								0.7	0.7			
0600 0730		0.4	0.4							0.6 0.7	0.8	0.7 0.8		
0900			0.3							0.7	0.8	0.0		
1030			0.4								0.7		0.9	
1200 1330								0.7		0.7		0.8	1.0	
1500								0.6		0.6				
1630 1800									0.6					
1930						0.5			0.7				1.0	
2100 2230	0.4					0.6	0.6						1.1	
2400	0.5	0.4	0.4	0.4	0.5	0.6	0.7	0.6	0.7	0.6	0.7	0.9	1.1	1.0

LAKE MICHIGAN, STATION 18, 10 m continued.

DATE	4-18	4-19	4-20	4-21	4-22	4-23	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2
TIME														
0130	1.0	1.1												
0300		1.0												
0430		1.1												
0600		1.0												
0730														
0900														
1030														
1200														
1330														
1500														
1630														
1800		1.0												
1930		1.1												
2100														
2230	1.0	1.1												
2400	1.1	End												

LAKE MICHIGAN - STATION 18. Depth 15 m. Start 29 November 1962, 1650 CST; end 20 April 1963, 1000 CST. Instrument serial no. 105, film record 20,097. No temperature correction.

DATE	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12
TIME														
0130		6.3	6.2	6.2	6.4	6.4	6.4	6.2	6.0	6.0	5.8	5.8	5.8	5.5
0300														
0430		6.3		6.2						6.0				5.5
0600		6.2		6.3						5.9			5.8	5.6
0730										5.9			5.7	
0900										5.8			5.7	
1030													5.6	
1200							6.4	6.2						
1330							6.3	6.1						
1500				6.3										5.6
1630				6.4	6.4									5.5
1800	6.3				6.5			6.1			5.8			
1930					6.5			6.0			5.7			
2100					6.4		6.3				5.8			
2230							6.2						5.6	
2400	6.3	6.2	6.2	6.4	6.4	6.4	6.4	6.2	6.0	6.0	5.8	5.8	5.5	5.5

DATE	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	1 2 - 21	12-22	12-23	12-24	12-25	12-26
0130 0300	5.5	5.3	5.1	5.2 5.1	5.1	5.0	5.1	5.1	5.0	5.0	5.0	4.8	4.7	4.7
0430 0600	5.5		5.1 5.2			5.0 5.1			5.0 5.1					
0730 0900 1030	5.4										5.0 4.9			
1200 1330	5.4 5.3	5.3 5.2							5.1	5.0	4.5	4.8	4.7 4.6	
1500 1630 1800									5.0	4.9		4.7	4.6	
1930 2100								5.1		5.0			4.7	4.7
2230 2400	5.3	5.2	5.2	5.1	5.1 5.0	5.1	5.1	5.0	5.0	5.0	4.9	4.7	4.7	4.6
DATE	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9
0130 0300	4.6	4.8	4.4	4.1	4.1 4.1	4.0	3.9	4.0 3.9	4.0	3.9	3.9	4.0	4.0 3.9	3.9
0430 0600	4.6 4.7		, ,		4.0		3.9 4.0						3.9 4.0	
0730 0900 1030	4.7 4.6	4.8 4.4	4.4											
1200 1330			4.3 4.2											
1500 1630						4.0 3.9		3.9			3.9			3.9
1800 1930 2100			4.2					4.0	4.0 3.9		4.0			4.0
2230 2400	4.6 4.5	4.4	4.1 4.1	4.1	4.0	3.9	4.0	4.0	3.9	3.9	4.0	4.0	4.0 3.9	4.0
DATE	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23
TIME 0130 0300	4.0	3.9	3.7	3.5	3.5	3.4	3.1	3.0	2.9	2.9	2.9	2.7	2.4	2.4
0430 0600 0730 0900		3.9 3.8	3.7 3.6		3.5 3.6 3.5	3.4 3.3	3.1 3.0						2.5	2.4
1030 1200			3.0								2.9			2.3
1330 1500 1630	3.0		3.6			3.3 3.2		3.0			2.8 2.8 2.7	2.6 2.5 2.5		
1800 1930 2100	3.9	3.8 3.7	3.5 3.6 3.5	3.5 3.4 3.4				2.9				2.4	2.5	
2230 2400	3.9	3.7	3.5	3.5 3.5	3.5 3.4	3.2 3.1	3.0	2.9	2.9	2.9	2.7	2.4	2.4	2.3

DATE	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6
TIME 0130 0300	2.2	2.0	1.9	1.8	1.8	1.8	1.7	1.6	1.3	1.2	1.2	1.1	1.2	1.2
0430	2.2							1.6				1.1		
0600	2.1							1.5				1.2		
0730											1.2			
0900	2.1					1.8					1.1			
1030	2.0					1.7								
1200 1330									1.3				1.2	
1500									1.2				1,1	
1630								1.5	1.2				1.1	
1800								1.4					1.2	
1930														
2100		2.0	1.9											
2230		1.9	1.8				1.7	1.4						
2400	2.0	1.9	1.8	1.8	1.8	1.7	1.6	1.3	1.2	1.2	1.1	1.2	1.2	1.2
DATE TIME	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20
0130	1.2	1.2	1.1	1.0	1.1	1.0	0.9	0.8	0.7	0.8	0.7	0.6	0.6	0.7
0300				1.0			0.7	0.0	0.8	0.0	0.7	0.0	0.0	0.7
0430				1.0										0.6
0600		1.2		1.1										
0730		1.1			1.1									
0900					1.0									
1030			1.1											
1200 1330			1.0			1.0	0.9			0.8	0.7			
1500						0.9	0.8			0.7	0.6			
1630							0.0			0.7	0.6			
1800											0.7			
1930														
2100											0.7		0.6	
2230								0.8			0.6		0.7	0.6
2400	1.2	1.1	1.0	1.1	1.0	0.9	0.8	0.7	0.8	0.7	0.6	0.6	0.7	0.5
DATE TIME	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6
0130	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
0300	0.5	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
0430														
0600														
0730														
0900														
1030	0.5		0.0											
1200 1330	0.4		0.2											
1500			0.1											
1630	0.4													
1800	0.3													
1930														
2100							0.1							
2230							0.2							
2400	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

DATE	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20
0130	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1
0300 0430			0.2	0.2									0.1	0.1
0600 0730				0.1									0.2	
0900 1030		0.2												
1200		0.2	0.2											
1330 1500											0.2			
1630		0.1									•••			0.2
1800 1930		0.1											0.2	0.1
2100 2230		0.2	0.1											
2400	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
DATE	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3
0130	0.1	0.2	0.2	0.2	0.4	0.4	0.5	0.4	0.4	0.3	0.3	0.4	0.3	0.4
0300 0430									0.4				0.4	
0600 0730	0.1								0.3					
0900	0.2													0.4
1030 1200				0.2								0.4		0.5
1330 1500				0.4										
1630											0.3			
1800 1930											0.4			
2100 2230							0.5							
2400	0.2	0.2	0.2	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.4	0.5
DATE TIME	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17
0130	0.5	0.6	0.6	0.8	0.8	0.9	0.8	0.9	0.9	1.0	1.1	1.2	1.3	1.2
0300 0430				0.8								1.2	1.2	
0600 0730			0.6	0.7						1.0		1.3		
0900			0.7						0.9	1.1				
1030 1200						0.9			1.0		1.1		1.2	
1330 1500			0.7			0.8					1.2		1.1	
1630 1800	0.5			0.7			0.8						1.1 1.2	1.2
1930	0.0			0.8			0.9							1.1
2100 2230					0.8 0.9									
2400	0.6	0.6	0.8	0.8	0.9	0.8	0.9	0.9	1.0	1.1	1.2	1.3	1.2	1.1

LAKE MICHIGAN, STATION 18, 15 m continued.

DATE	4-18	4-19	4-20	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3
TIME														
0130	1.1	1.1	1,1	1.3										
0300		1.0		1.3										
0430				End o	£									
0600				recor										
0730				recor	u									
0900			1.1											
1030			1.2											
1200														
1330														
1500														
1630														
1800														
1930														
2100			1.2											
2230		1.0	1.3											
2400	1.1	1.1	1.3											

LAKE MICHIGAN - STATION 18. Depth 22 m. Start 29 November 1962, 1650 CST; end 20 April 1963, 1000 CST. Instrument serial no. 113, film record 20,098. No temperature correction.

DATE	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12
TIME														
0130		6.1	6.1	6.3	6.6	6.8	6.6	6.3	6.0	6.0	5.8	5.9	5.7	5.6
0300				6.3			6.6	6.3		6.0	5.8			
0430				6.4			6.4	6.2		5.9	5.9			
0600				6.4			6.4	6.2		5.9		5.9	5.7	5.6
0730				6.5			6.3	6.1		5.8		5.8	5.6	5.5
0900				6.5										
1030				6.6										
1200														
1330					6.6									
1500				6.6	6.7									
1630				6.7	6.6									
1800	6.0							6.1		5.8				
1930	6.0				6.6			6.0		5.7				
2100	6.1				6.8	6.8				5.7		5.8		
2230						6.7				5.8		5.7		
2400	6.1	6.1	6.1	6.7	6.8	6.7	6.3	6.0	6.0	5.8	5.9	5.7	5.6	5.5

DATE	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26
0130	5.5	5.2	5.2	5.1	5.1	5.0	5.1 5.1	5.1	5.0	4.9	4.9	4.8	4.7	4.8
0430 0600	5.5				5.1		5.2							
0730	5.4				5.0									4.8 4.7
0900														7.7
1030 1200	5.4												, -	
1330	5.3												4.7 4.8	
1500	5.3					5.0			5.0			4.8	7.0	
1630	5.2					5.1			4.9			4.7		
1800 1930											4.9 4.8			
2100			5.2				5.2				7.0			4.7
2230		- 0	5.1		- 0		5.1							4.6
2400	5.2	5.2	5.1	5.1	5.0	5.1	5.1	5.1	4.9	4.9	4.8	4.7	4.8	4.6
DATE TIME	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9
0130	4.6	4.6	4.8	4.6	4.1	4.0	4.0	4.0	4.0	4.0	3.8	3.8	3.7	3.8
0300					4.1			4.0						
0430 0600					4.0			4.1						
0730														
0900	4.6			4.6			4.0							
1030	4.5		, ,	4.5			3.9			, ,				
1200 1330		4.6 4.7	4.8 4.6							4.0 3.9				
1500	4.5			4.5						3.7		3.8	3.7	
1630	4.6			4.4								3.7	3.8	
1800 1930		4.7 4.8		4.4 4.3						3.9 3.8				
2100		4.0		4.3			3.9	4.1		3.8				
2230				4.1			4.0	4.0						
2400	4.6	4.8	4.6	4.1	4.0	4.0	4.0	4.0	4.0	3.8	3.8	3.7	3.8	3.8
DATE TIME	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23
0130	3.8	3.6	3.4	3.3	3.3	3.1	3.0	2.8	2.8	2.7	2.7	2.3	2.5	2.3
0300	3.8					3.1	3.0							
0430 0600	3.7		3.4		2 2	3.0	2.9							
0730			3.4		3.3 3.2									
0900										2.7				
1030										2.8				
1200 1330											2.7			
1500										2.8	~.0	2.3	2.5	2.3
1630										2.9		2.4	2.4	2.2
1800 1930		3.6 3.5			3.2 3.1					2.9 2.8	2.6 2.5		2.4	2.2
2100	3.7	3.3			J. 1		2.9			2.0	2.5		2.5	2.1
2230	3.6						2.8				2.4			2.0
2400	3.6	3.5	3.3	3.3	3.1	3.0	2.8	2.8	2.8	2.8	2.4	2.4	2.3	2.0

DATE	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6
0130 0300 0430	2.0	2.0	2.0 2.0 2.1	1.9	1.9 1.9 1.8	1.8 1.8 1.7	1.7	1.7 1.7 1.6	1.2	1.2	1.0 1.0 1.1	1.1	1.2	1.4
0600 0730			2.1		1.0	,		1.0					1.2 1.3	
0900 1030							1.7 1.8	1.6 1.5	1.2 1.1					
1200 1330								1.5 1.4			1.1 1.2			
1500 1630										1.2		1.1 1.2		
1800 1930 2100		2.0	2.0				1.8	1.4 1.3	1.1 1.2	1.1 1.0	1.2		1.3 1.4	1.4
2230 2400	2.0	1.9	1.9	1.9	1.8	1.7	1.7	1.3	1.2	1.0	1.1	1.2	1.4	1.3
DATE	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20
0130 0300	1.3	1.2	0,9	0.9	1.0	0.9	0.7	0.7	0.6	0.5	0.5	0.5	0.5	0.4
0430 0600 0730	1.2	1.2 1.1				0.8								
0900 1030		1.1			1.0 0.9									
1200 1330		1.1 1.0			0.5									
1500 1630				0.9 1.0			0.7 0.8	0.7 0.6						0.4
1800 1930							0.8 0.7		0.6 0.5					
2100 2230		1.0						0.6					0.5	0.3
2400 DATE	1.2 2-21	0.9 2-22	0.9 2-23	1.0 2-24	0.9 2-25	0.8 2-26	0.7 2-27	0.7 2-28	0.5 3-1	0.5 3-2	0.5 3-3	0.5 3-4	0.4 _3-5	0.2 3-6
TIME 0130	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
0300 0430	0.2													
0600 0730						0.1								
0900 1030	0.1					0.2								
1200 1330		0.0								0.1		0.1		
1500 1630										0.0				
1800 1930 2100										0.2				
2230 2400	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2

DATE TIME	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20
0130 0300 0430 0600 0730 0900	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.1 0.0 0.0 0.0	0.1	0.1 0.1 0.0 0.0 0.1	0.2
1030 1200 1330 1500 1630 1800 1930 2100	0.2				0.3	0.2	0.3			0.2				0.2 0.3 0.3 0.2
2230 2400	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2
DATE	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3
TIME 0130 0300 0430	0.2	0.0 0.0 0.1	0.4	0.8	0.8	0.8	0.6	0.5	0.7	0.6	0.6	0.6	0.7	0.8
0600 0730 0900 1030 1200 1330 1500 1630 1800 1930 2100 2230	0.2	0.1 0.2 0.2 0.3	0.4 0.5 0.5 0.6 0.6 0.7 0.7		0.8 0.7 0.7 0.8	0.8 0.7 0.7 0.6	0.6	0.5 0.6 0.6 0.7	0.7			0.6	0.7 0.8	
2400	0.1	0.4	0.8	0.8	0.8	0.6	0.5	0.7	0.6	0.6	0.6	0.7	0.8	0.8
DATE TIME	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17
0130 0300 0430 0600 0730 0900 1030	0.8	0.8 0.8 0.9	1.0	1.0	1.0	1.0 1.0 1.1	1.1	1.3	1.4	1.4	1.4	1.4 1.4 1.3	1.3	1.3
1200 1330 1500 1630 1800 1930 2100 2230		0.9						1.3 1.4						1.3 Data Ends
2400	0.8	1.0	1.0	1.0	1.0	1.1	1.2	1.4	1.4	1.4	1.4	1.3	1.3	

LAKE MICHIGAN - STATION 18. Depth 30 m.
Start 29 November 1962, 1650 CST; end 20 April 1963, 1000 CST.
Instrument serial no. 115, film record 20,099. No temperature correction.

DATE	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12
TIME 0130		6.5	6.5	6.5	6.3	6.4	6.5	6.6	6.2	6.2	6.1	5.9	6.0	5.9
0300 0430 0600 0730 0900						6.4 6.5		6.6 6.5	6.2 6.3	6.2 6.1	6.1 6.0 6.0	5.9 6.0	6.0	5.9 5.8
1030 1200 1330 1500			6.5 6.4						6.3 6.2		5.9		5.9	5.8
1630 1800 1930 2100	6.7 6.5		6.4 6.5		6.3			6.5 6.4						5.7 5.6
2230 2400	6.5	6.5	6.5	6.5	6.4 6.4	6.5	6.5 6.4	6.4	6.2	6.1	5.9	6.0	5.9	5.6
DATE	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26
0130 0300 0430	5.6	5.5	5.4 5.4 5.3	5.2	5.2	5.1 5.1 5.1	5.2 5.2	5.1	5.1	5.1	5.1	5.0 4.9	4.8	4.7
0600 0730 0900						5.2	5.1							
1030 1200 1330 1500		5.5 5.6 5.7			5,2						5.1 5.0			
1630 1800 1930 2100 2230	5.6 5.5	5.7 5.6 5.5 5.4	5.3 5.2		5.1							4.9 4.8	4.8 4.7	4.7 4.6
2400	5.5	5.4	5.2	5.2	5.1	5.2	5.1	5.1	5.1	5.1	5.0	4.8	4.7	4.6
DATE	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9
0130 0300	4.6	4.5 4.5	4.5	4.4	4.3	4.2	4.1	4.0	4.0	3.9	3,9	4.1	4.0	3.9
0430 0600 0730 0900		4.6 4.7					4.1 4.0	4.0 3.9			3.9 4.0		4.0 4.1	
1030 1200 1330	4.6		4.5 4.4 4.4				4.0	3.9 4.0				4.1 4.0		
1500 1630 1800 1930	4.5	4.7	4.5	4.4 4.3	4.3 4.2	4.2 4.1			4.0 3.9		4.0 4.1		4.1 4.0	
2100 2230 2400	4.5	4.6 4.6 4.5	4.4	4.3	4.2	4.1	4.0	4.0	3.9	3.9	4.1	4.0	4.0 3.9 3.9	3.9

DATE TIME	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23
0130	3.9	4.0	3.9	3.9	3.9	3.7	3.4	3.4	3.4	3.2	3.1	3.0	3.0	3.0
0430	4.0			4.0						3.2				
0600 0730				4.0 3.9		3.7				3.1				
0900				3.7		3.6			3.4					
1030 1200					3.9	3.6			3.3					
1330					3.8	3.5			3.3		3.1			
1500 1630									3.2		3.0			
1800		4.0			2.0	3.5								
1930 2100		3.9			3.8 3.7	3.4								3.0
2230 2400	4.0	3.9	3.9	3.9	3.7	3.4	3.4	3.4	3.2	3.1	3.0	3.0	3.0	2.9
DATE	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6
TIME														
0130 0300	2.9	2.6	2.6	2.5	2.2	1.9	2.0	2.0	1.9 1.9	1.7	1.6	1.7	1.6 1.6	1.2
0430					2.1		2.1		1.8				1.5	1.2
0600 0730	2.9				2.1		2.2						1.7 1.6	1.3
0900	2.8			2.5	2.0								1.5	
1030 1200			2.6	2.4	1.9			2.0						
1330	2.8						2.2	1.9					1.5	
1500 1630	2.1						2.1			1.7			1.3	
1800 1930				2.4			2.0		1.8	1.6			1.3 1.2	
2100				2.3		1.9			1.7		1.6	1.7	1.3	
2230 2400	2.7	2.6	2.5	2.2	1.9	2.0	2.0	1.9	1.7	1.6	1.7 1.7	1.7 1.6	1.2	1.3 1.2
DATE	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20
TIME														
0130 0300	1.2	1.1 1.2	1.1	1.2	1.3	1.2	1.3	1.1	1.0	1.0	$\frac{1.0}{1.0}$	0.9	1.2 1.1	0.7
0430								1.0		1.0	0.9		1.0	0.7
0600 0730										1.1				0.8
0900 1030	1.2	1.2 1.1				1.2				1.0				0.7 0.6
1200	1.1	1.1				1.3								0.0
1330 1500				1.2 1.3										
1630				1.5									1.0	
1800 1930							1.3 1.1					0.9 1.1	0.9	0.6 0.5
2100					1.3							1.0 1.2	0.7	
2230 2400	1.1	1.1	$\frac{1.1}{1.2}$	1.3	1.2 1.2	1.3	1.1	1.0	1.0	1.0	0.9	1.2	0.7	0.5

DATE TIME	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6
0130 0300	0.5	0.5	0.4	0.4	0.3	0.2	0.0	0.1	0.2	0.2	0.1	0.0	0.1	0.2
0430 0600		0.5												
0730		0.4			0.3	0.2					0.1			
0900 1030					0.2	0.1				0.2				
1200 1330						0.1				0.1				
1500 1630						•••								
1800								0.1				0.0	0.1	
1930 2100							0.0	0.2						
2230 2400	0.5	0.4	0.4	0.4	0.2	0.0	0.1	0.2	0.2	0.1	0.0	0.1	0.2	0.2
DATE	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20
TIME 0130	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2
0300 0430														
0600 0730														0.2
0900														0.1 0.2
1030 1200														
1330 1500								0.2				0.1		
1630 1800								0.2	0.0			0.2		
1930								0.1	0.2					
2100 2230														
2400 DATE	0.2 3-21	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2
TIME		3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3
0130 0300	0.2	0.2	0.2	0.3	0.2	0.6	0.7	0.7	0.5	0.2	0.4	0.5	0.6	0.8
0430 0600					0.3				0.4				0.7	
0730 0900				0.3	0.4				0.4					
1030				0.2					0.3			0.5		
1200 1330										0.2	0.4			
1500 1630										0.5	0.5			
1800			0.2		0.4			0.7		0.3			0.7	
1930 2100			0.3		0.5			0.6		0.4			0.8	
2230 2400	0.2	0.2	0.3	0.2	0.5 0.6	0.7	0.7	0.6 0.5	0.3 0.2	0.4	0.5	0.6	0.8	0.8 0.9

LAKE MICHIGAN, STATION 18, 30 m continued.

DATE	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17
0130 0300 0430	0.9	1.0	1.0	1.0	1.2 1.1	1.1	1.2	1.2 1.3 1.3	1.4	1.4	1.3	1.3	1.3	1.5
0600 0730 0900			1.0					1.4			1.3 1.4			
1030 1200			1.1			$\frac{1.1}{1.2}$							1.3 1.4	1.5
1330 1500 1630	0.9		1.0 1.1	1.0						1.4 1.3	1.4 1.3			1.6 1.6 1.7
1800 1930	1.0		1.1 1.0											
2100 2230 2400	1.0	1.0	1.0	1.1	1.1	1.2	1.2	1.4	1.4	1.3	1.3	1.3	1.4	1.7
DATE	4-18	4-19	4-20	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1500 1630 1800 1930 2230 22400	1.7	1.7 End of record												

LAKE MICHIGAN - STATION 18. Depth 60 m. Start 29 November 1962, 1650 CST; end 20 April 1963, 1000 CST. Instrument serial no. 101, film record 20,100. No temperature correction.

DATE	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12
0130 0300		5.5 5.6	5.5	5.5 5.5	5.5	5.4	5.4	5.3	5.6	5.7	5.7 5.7	5.3	5.4 5.4	5.6
0430 0600 0730				5.4					5.6 5.7		5.8 5.8		5.5 5.5 5.6	
0900 1030		5.6 5.5		5.4 5.5							5.7 5.6	5.3	5.6 5.7	5.6
1200 1330							F /				5.6	5.4		5.5
1500 1630 1800	5.7						5.4 5.3			5.7 5.6 5.6	5.4	5.3	5.7 5.6	
1930 2100	5.4				5.5 5.4			5.3 5.5		5.7				5.5 5.4
2230 2400	5.4 5.5	5.5	5.5	5.5	5.4	5.4	5.3	5.6 5.6	5.7	5.7	5.4 5.3	5.3 5.4	5.6	5.4
DATE TIME	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26
0130 0300	5.4	5.4 5.4	5.3	5.2 5.2	5.1	5.1 5.0	4.9 4.9	5.0	5.0	5.0	5.0	5.0	4.9	4.8
0430 0600		5.3	5.3 5.2	5.1			5.0							
0730 0900 1030			5.2											
1200 1330			5.1										4.9 4.8	4.8 4.7
1500 1630						5.0						5.0		
1800 1930						4.9						4.9		
2100														
2230 2400	5.4	5.3	5.2	5.1	5.1 5.0	4.9	5.0	5.0	5.0	5.0	5.0	4.9	4.8	4.7
DATE TIME	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9
0130 0300 0430	4.7	4.5 4.5 4.6	4.7	4.7	4.4 4.4 4.3	4.1	4.0 3.9 4.0	3.9	3.9	4.0	4.0	4.0	4.0	3.9 4.0
0600 0730		4.7				4.0				4.0				
0900 1030				4.7	4.3 4.2			3.9		3.9				
1200 1330				4.6				4.0 3.9	3.9 4.0				4.0	
1500 1630 1800				4.6	4.2					3.9 4.0			3.9	4.0 3.9
1930 2100	4.7 4.6			4.5	•									
2230 2400	4.6 4.5	4.7	4.7	4.5 4.4	4.1	4.0	4.0 3.9	3.9	4.0	4.0	4.0	4.0	3.9	3.9

LAKE MICHIGAN, STATION 18, 60 m continued.

DATE	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23
0130 0300 0430	3.9	3.9	3.9	3.9	3.9	3.9 3.9	3.6	3.3	3.3	3.4	3.3 3.3 3.2	3.2 3.2 3.1	3.0 2.9	2.9
0600 0730 0900 1030						3.8			3.3 3.4			3.1 3.0		2.9
1200 1330 1500							3.6 3.5 3.5							2.8
1630 1800 1930						3.8 3.7	3.4			3.4 3.3				
2100 2230 2400	3.9	3.9	3.9	3.9	3.9	3.7 3.6 3.6	3.3 3.3 3.3	3.3	3.4	3.3	3.2	3,0	2.9	2.8
DATE	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6
TIME 0130 0300	2,8	2.9	2.6	2.5	2.5	2.3	1.9	1.8	2.0	2.0	1.9	1.7	1.8	1.6
0430 0600 0730 0900		2.9	2.6 2.5		2.5	2.3		1.8 1.9	2.0 1.9			1.7	1.8 1.7 1.6	
1030 1200 1330 1550		2.8 2.7			2.5 2.4 2.3	2.2 2.1	1.9			2.0 1.9		1.6		
1630 1800 1930		2.7				2.1 2.0	1.8	1.9 2.0	1.9		1.9 1.8	1.6 1.8		
2100 2230 2400	2.8 2.9	2.6	2.5	2.5	2.3	2.0 1.9 1.9	1.8	2.0	2.0	1.9	1.8	1.8	1.6	1.6
DATE	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20
TIME 0130 0300 0430	1.6 1.6 1.7	1.7 1.8	1.1	1.1 1.1 1.2	1.0 1.1	1.1	1.2	1.0 1.0	1.0	1.1	1.0 1.0 1.1	1.1	1.1	1.1
0600 0730 0900				1.2 1.1					1.0					
1030 1200 1330 1500 1630		1.8 1.7 1.7 1.6					1.2 1.1							
1800 1930 2100		1.6 1.5 1.4		1,1			1.1			1.1 1.0				
2230 2400	1.7	$\frac{1.2}{1.1}$	1.1	1.0 1.0	1,1	1.1 1.2	1.0 1.0	1.0	1.1	1.0	1.0 1.1	1.1	1.1	1.1

DATE	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6
TIME 0130 0300	1.1	1.0	1.1	1.1	1.5	1.4	1.4	1.2	1.0	0.2	0.1	0.3	0.5	0.7
0430 0600 0730 0900 1030 1200		,	•	1.1 1.2 1.2	1.5 1.4 1.3		1.4		1.0 0.8 0.6 0.4		0.1		0.5 0.4 0.6	
1330 1500 1630 1800 1930 2100	1.1	1.0		1.1 1.3 1.4 1.4	1.3 1.4		1.3	1.2 1.0 1.1	0.2	0.2	0.2 0.3	0.3 0.4 0.4 0.5	0.7	0.7
2230 2400	1.0	1.1	1.1	1.5	1.4	1.4	1.2 1.2	1.1 1.0	0.2	0.1	0.3	0.5	0.7 0.7	0.8
DATE	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20
TIME 0130 0300	0,8	0.9	1.0	0.9	0.9	0.9	0.8	0.8	0.5	0.5	0.4	0.3	0.8	1.0
0430 0600 0730			1.0	0.9 0.8			0.9						0.8 0.7	
0900 1030 1200	0.8		0.9	0.8 0.7 0.7	0.9	0.9	0.9	0.8				0.3 0.4 0.5	0.7 0.8	
1330 1500 1630 1800	0.9		0.8 0.6 0.5 0.5	0.8 0.8 0.9	1.0	1.0		0.7 0.6		0.5 0.4	0.4	0.6 0.6 0.7 0.8	0.8	
1930 2100 2230		0.9 1.0	0.7 0.8 0.9			0.9		0.5			0.3		0.9	1.0 1.1
2400	0.9	1.0	0.9	0.9	0.9	0.8	0.8	0.5	0.5	0.4	0.3	0.8	1.0	1.1
DATE TIME	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3
0130 0300 0430 0600 0730	1,1	1.1	1.1	1.1	1.1	1.0 1.0 0.9 1.0	0.9	1.0	1.0	1.1	0.8 0.8 0.9 1.0	1.0 1.0 0.9 0.8 0.6	0.6 0.5	0.6 0.7
0900 1030 1200 1330					1.1					1.2 1.1 1.0 0.9	1.0 0.9 1.0 1.0	0.5 0.4 0.3		0.7 0.8
1500 1630 1800	1.1				1.0	1.0 0.9			1.0	0.9	1.1	0.3 1.0 1.1	0.5 0.6	0.9
1930 2100 2230 2400	1.0 1.1 1.1	1.1	1.1	1.1	1.0	0.9	0.9 1.0 1.0	1.0	1.1	0.8	1.2 1.2 1.1 1.0	1.0 0.9 0.7 0.6	0.6	1.0

LAKE MICHIGAN, STATION 18, 60 m continued.

DATE	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17
TIME 0130 0300	1.0	0.9	0.8	0.7	0.8	0.3	0.3	0.3	0.3	0.3	0.4	0.6	0.9	0.9
0430	1.0	0.8	0.8		0.7							0.6		0.9
0600 0730	1.1		0.7	0.7 0.8	0.7		٠.				0.4	0.7		0.8
0900	1.0			0.8	0.5							0.7		0.7
1030 1200		0.8	0.7	0.9	0.3				0.3			0.8		
1330		0.8							0.2		0.5			
1500 1630									0.2		0.6			
1800				0.9					0.3					0.7
1930 2100			0.8	0.8						0.3		0.8		0.6
2230	1.0											0.9		
2400	0.9	0.8	0.7	0.8	0.3	0.3	0.3	0.3	0.3	0.4	0.6	0.9	0.9	0.6
DATE	4-18	4-19	4-20	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1
TIME 0130	0,6	0.7	4-20	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1
TIME 0130 0300			4-20	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1
TIME 0130 0300 0430 0600			4-20	4-21	_4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1
TIME 0130 0300 0430 0600 0730			4-20	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1
TIME 0130 0300 0430 0600			4-20	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1
TIME 0130 0300 0430 0600 0730 0900 1030 1200			4-20	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1
0130 0300 0430 0600 0730 0900 1030			4-20	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630		0.7		4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500		0.7	of.	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800	0.6	0.7 0.7 End o	of.	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1

LAKE MICHIGAN - STATION 20. Depth 10 m. Start 28 November 1962, 1630 CST; end 22 April 1963, 1445 CST. Instrument serial no. 111, film record 20,106. No temperature correction.

DATE	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11
TIME 0130		9.4	8.0	8.6	8.0	9.0	9.3	9.4	9.2	8.2	8.0	7.9	7.2	7.7
0300		9.3	7.9	8.5	8.0				9.1	8.1	8.0	7.9	7.3	7.6
0430			7.8		8.2				9.0	8.0	7.9	7.8	7.3	7.5
0600 0730		9.3	7.9		8.2			9.4	9.0 8.9		7.9	7.8 7.7	7.3	7.4 7.4
0900		9.3			8.5			9.3	8.8		7.8	7.7	7.4	7.3
1030		9.1	7.9		8.6			,,,	8.7			7.6	7.4	7.1
1200		9.0	8.0		8.6		9.3		8.6			7.5	7.5	6.9
1330		8.7	7.9		8.7	9.0	9.4		8.5			7.4	7.6	7.0
1500		8.4	7.8		8.8	9.1			8.4			7.3 7.2	7.7 7.7	7.3 7.6
1630 1800	9.5	8.3 8.3	8.1		8.9	9.2 9.3			8.3			1.2	7.8	7.7
1930	9.3	8.0	8.4	8.5		7.5							,.0	, • ,
2100	9.5	8.1	8.5	8.3	8.9				8.3			7.2		7.7
2230	9.4	8.2		8.0	9.0			9.3	8.2		7.8	7.1	7.8	7.8
2400	9.4	8.2	8.5	8.0	9.0	9.3	9.4	9.2	8.2	8.0	7.9	7.1	7.7	7.9
DATE	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25
0130	7.9	6.6	7.0	6.6	6.7	6.6	7.0	7.0	6.8	6.7	6.2	6.0	6.0	5.8
0300		6.8	7.0		6.7	6.5		6.9	6.8	6.6			6.0	5.9
0430		7.3	6.8	6.6	6.8				6.7	6.6			6.1	5.8
0600	7.9		6.7	6.5	6.9	6.5		6.9		6.5			6.2	5.9
0730 0900	7.8	7.3 6.7	6.7 6.8	6.5	6.9	6.6 6.7		6.8		6.5 6.4	6.2		6.2	
1030		6.8	0.0	6.6	7.1	6.8				6.4	6.1		6.1	
1200	7.8	7.3	6.8	6.7	7.1	0.0				6.3	6.0		6.0	
1330	7.7	7.2	6.7	6.8	7.2					6.2			6.0	
1500	7.6	7.0	6.6	6.9		6.8				6.1			5.9	
1630	7.5	6.5		7.0	7.2	6.9				6.1			5.8	
1800 1930	7.5 7.4	6.1 6.6	6.6	7.1	7.1 7.0					6.2			5.7	
2100	7.3	7.0	6.5	7.1	6.9	6.9				0.2				
2230	7.2	7.1	6.5	7.0	6.8	7.0								
2400	6.8	7.0	6.6	6.9	6.7	7.0	7.0	6.8	6.7	6.2	6.0	6.0	5.7	5.9
DATE	12-26	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8
TIME 0130	5.9	5.9	5.7	5.4	5.4	5.4	5.2	5.2	5.3	5.3	5.2	5.2	5.2	5.2
0300		5.9	-											
0430		5.8	5.7			5.4								
0600			5.6			5.3								
0730 0900														
1030		5.8												
1200	5.9	5.7	5.6											
1330	6.0		5.5					5.2						
1500								5.3						
1630 1800			5.5											
1930			5.4											
2100			/			5.3								
2230						5.2								
2400	6.0	5.7	5.4	5.4	5.4	5.2	5.2	5.3	5.3	5.3	5.2	5.2	5.2	5.2

DATE TIME	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22
0130 0300 0430 0600 0730 0900	5.2	5.2	5.0	5.0	4.8 4.8 4.9	4.6 4.6 4.4 4.3	4.0 4.3 4.6 4.6	4.5	4.5	4.4	4.1 4.0	3.9	3.9 3.8 3.7	3.7 3.8 3.7 3.6 3.2
1030 1200 1330 1500 1630 1800		5.2 5.1		5.0 4.9 4.9	4.9 4.8	4.2 4.1 3.9 3.3 3.2				4.4 4.3	4.0	3.9 3.8	3.7 3.6	2.8 2.7 2.7 2.8 3.1 3.3 3.2
1930 2100 2230 2400	5.2	5.1 5.0 5.0	5.0	4.8	4.8 4.7 4.7 4.6	3.2 3.3 3.4 3.7	4.6 4.5	4.5	4.5 4.4 4.4	4.3	3.8 3.7 3.7	3.8	3.6 3.7	2.9 2.8 2.7 2.7
DATE	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5
0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630	2.7 2.7 2.8 2.9	3.4 3.5 3.5 3.4	3.3 3.2 3.1 2.6 2.4 2.0 1.9	1.1 1.1 1.0	1.1 1.2 1.5 2.3 2.4 2.4 2.1 2.0	1.5 1.4 1.4 1.3 1.4 1.5 1.5 1.5	2.4 2.4 2.5 2.4 2.3 2.1 1.9	2.0 2.1 2.3 2.2 2.0	2.0 2.1 2.2	2.0 2.1 2.2	2.4 2.4 2.3 2.3	1.9 1.7 1.6	2.2 2.3 2.3 2.4 2.5	2.4 2.0 1.9 1.8 1.7 1.6
1800 1930 2100 2230 2400	3.0 3.1 3.2 3.3 3.3	3.4 3.3 3.3	1.8 1.7 1.5 1.3 1.2	1.0	1.9 1.7 1.6 1.5	1.5 1.6 1.8 2.1 2.3	1.7 1.8 1.9 2.0	2.0	2.2 2.1 2.0 2.0	2.3 2.5 2.5 2.4	2.4 2.3 2.1 2.0	1.6 1.7 2.0	2.5	1.5 1.4 1.4 1.3
DATE	2-6	2-7_	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	-2-17	2-18	2-19
0130 0300 0430 0600 0730 0900 1030	1.4	1,3	1.3 1.4 1.4 1.5	1.5	1.5	1.8 1.9 1.7 1.9 1.9 1.8	1.3	1.3	1.3	1,2	1.2	1.4 1.4 1.5	1.7 1.7 1.6	1.7 1.8 1.8 1.7
1200 1330 1500 1630 1800 1930	1.4 1.5		1.5		1.5 1.6	1.9 1.7 1.6 1.5 1.5	1.3				1.2 1.1 1.1 1.2	1.5 1.6	1.6	1.6 1.6 1.5
2100 2230 2400	1.5	1.3	1,5	1.5	1.6	1.4 1.3 1.3	1.2	1.3	1.3	1.2	1.2 1.3 1.3	1.6 1.7 1.7	1.5 1.6 1.7	1.5 1.6

LAKE MICHIGAN, STATION 20, 10 m continued.

DATE	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5
TIME														
0130	1.6	1.3	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.2	1.1
0300		1.2												
0430	1.6	1.1												
0600	1.5	1.1								1.0				
0730		1.0								1.1				
0900														
1030				1.0										
1200				1.1								1.1		
1330				1.1								1.2		
1500				1.0										
1630														
1800	1.5												1.2	
1930	1.4												1.1	
2100	1.3													
2230														
2400	1.3	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.2	1.1	1.1
DATE	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19
TIME														
					3 10		J 14	<u> </u>	J=14	3-13	3-10	3-1/	3-10	3-19
0130	1.1	1.0												3-19
0130	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	3-17
0130 0300	1.1	1.0											1.1 1.1	
0130 0300 0430	1.1	1.0							1.0				1.1 1.1 Film	torn.
0130 0300 0430 0600	1.1	1.0							1.0				1.1 1.1 Film	
0130 0300 0430 0600 0730	1.1	1.0							1.0				1.1 1.1 Film	torn.
0130 0300 0430 0600 0730 0900		1.0							1.0				1.1 1.1 Film	torn.
0130 0300 0430 0600 0730 0900 1030	1.1	1.0							1.0				1.1 1.1 Film	torn.
0130 0300 0430 0600 0730 0900 1030 1200		1.0							1.0				1.1 1.1 Film	torn.
0130 0300 0430 0600 0730 0900 1030 1200 1330	1.1	1.0							1.0				1.1 1.1 Film	torn.
0130 0300 0430 0600 0730 0900 1030 1200 1330 1500	1.1	1.0							1.0				1.1 1.1 Film	torn.
0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630	1.1	1.0							1.0				1.1 1.1 Film	torn.
0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800	1.1	1.0							1.0				1.1 1.1 Film	torn.
0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930	1.1	1.0							1.0				1.1 1.1 Film	torn.
0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930 2100	1.1	1.0							1.0				1.1 1.1 Film	torn.
0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930	1.1	1.0							1.0				1.1 1.1 Film	torn.

LAKE MICHIGAN - STATION 20. Depth 15 m. Start 28 November 1962, 1630 CST; end 22 April 1963, 1445 CST. Instrument serial no. 110, film record 20,107. No temperature correction.

DATE	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11
0130		8.7	7.1	7.1	7.1	8.0	8.4	8.5	8.3	7.4	7.1	7.0	6.1	6.9
0300		8.6	7.0	7.2					8.2	7.3				6.8
0430		8.6	7.0						8.2		7.1			6.6
0600		8.5	6.9						8.1	7.3	7.0			6.4
0730		8.5	6.8	7.2	7.1			8.5	8.1	7.2		7.0		6.3
0900		8.4		7.3	7.2			8.4	8.0	7.1		6.9	6.1	6.2
1030		8.3		7.4	7.3	8.0						6.8	6.2	6.1
1200 1330		8.1		7.6	7.8	8.1	0 /		8.0			6.6	6.3	6.0
1500		7.9 7.4		7.7	7.9 7.9	8.2 8.3	8.4 8.5		7.9			6.4	6.4	
1630		7.3	6.8	7.7	8.0	0.3	0.5		7.7			6.2 6.1	6.6 6.8	6.0 6.4
1800	8.7	7.3	6.9	7.5	0.0	8.3			7.7			0.1	6.9	6.8
1930	٠.,	7.1	7.0	7.4	8.0	8.4			7.6				0.5	0.0
2100			7.2	7.2	8.1	•••			7.6					
2230			7.0	7.1	8.0				7.5					6.8
2400	8.7	7.1	7.1	7.1	8.0	8.4	8.5	8.4	7.5	7.1	7.0	6.1	6.9	6.9
DATE	12-12		12-14					12-19			12-22			
TIME														
0130	6.9	5.7	6.0	5.9	6.0	6.0	6.0	6.0	6.0	5.9	5.5	5.4	5.4	5.1
0300	7.0	5.8				5.9								
0430		6.1	6.0							5.9				5.1
0600	7.0	6.1	5.9	5.9						5.8		5.4		5.2
0730	6.9	6.2		5.8	6.0	5.9				5.7		5.3	5.4	
0900		5.8		- 0	6.1	6.0				5.6			5.5	
1030 1200		5.8	- 0	5.8			6.0				5.5		5.5	
1330	6.9	6.1 6.0	5.9 5.8	5.9 6.0			6.1			5.6 5.5	5.4		5.4 5.3	
1500	6.8	6.0	5.9	0.0			0.1			3.3		5.3	5.2	
1630	6.7	5.5	3.9		6.1							5.4	5.1	
1800	6.6	5.5	5.9		6.0		6.1					5.3	٥.1	
1930	6.5	5.7	5.8		0.0		6.0					5.5		
2100	6.3	6.0	5.8				•••		6.0					5.2
2230	6,2		5.9						5.9			5.3		5.3
2400	6.1	6.0	5.9	6.0	6.0	6.0	6.0	6.0	5.9	5.5	5.4	5.4	5.1	5.3
DATE	12-26	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8
TIME														
0130	5.3	5.2	5.1	5.0	5.0	5.0	4.7	4.5	4.5	4.6	4.6	4.6	4.8	4.7
0300		5.1					4.7							
0430						- 0	4.6							
0600	F 2		5.1			5.0						4.6		
0730	5.3		5.0			4.9	, ,					4.7	, ,	4.7
0900 1030	5.2			4.0			4.6						4.8 4.7	4.6
1200		5.1		4.9			4.5						4./	
1330		5.2												
1500		3.2							4.5					
1630				4.9					4.6					
1800				5.0								4.7		4.6
1930												4.8		4.5
2100		5.2				4.9								
2230		5.1				4.8								
2400	5.2	5.1	5.0	5.0	5.0	4.7	4.5	4.5	4.6	4.6	4.6	4.8	4.7	4.5

DATE	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22
TIME 0130 0300 0430	4.5	4.4	4.3	4.3	4.3	4.2	3.0 3.1 3.7	3.9	3.7	3.7	3.6 3.5 3.2	3.1	3.0	3.0
0600 0730 0900						4.1	3.8 3.9	3.9 3.8			3.2	3.1 3.0		3.0 2.9 2.6
1030 1200 1330					4.3	4.0		3.0				3.0		2.3 2.2 2.3
1500 1630 1800		4.4			4.2	3.8 2.9 2.8		3.8 3.7			3.2		3.0	2.4 2.6 2.8
1930 2100 2230	4.5 4.4	4.3		4.3 4.2		2.8		3.7 3.6		3.7 3.6	3.1		2.9	2.9 2.7 2.6
2400	4.4	4.3	4.3	4.2	4.2	2.9	3.9	3.6	3.7	3.6	3.1	3.0	3.0	2.6
DATE TIME	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5
0130 0300 0430	2.5 2.4	2.6 2.7	2.6	0.9	0.6 0.8 1.0	1.0	1.6 1.8 1.9	1.2 1.2 1.1	1.2 1.3 1.2 1.5	1.3 1.3 1.6	1.8	1.5 1.3 1.2 1.1	1.1 1.3 1.5 1.7	1.9 1.8 1.7 1.6
0600 0730 0900			2.6	0.8 0.7 0.6	1.2 1.8 2.0	1.0 0.9		1.2 1.7 1.6	1.3	1.5		1.0	1.8	1.0
1030 1200 1330			2.5 2.4 2.0		2.2 2.1 1.9	0.9 1.0	1.9 1.6	1.3 1.2 1.1	1.2 1.9 2.0	1.5 1.8 1.9			2.0	1.6 1.4 1.1
1500 1630 1800	2.4	2.7 2.6	1.9 1.7 1.4		1.9 1.8 1.7		1.3			1.6 1.6 1.7	1.8 1.9			1.1 1.0
1930 2100 2230 2400	2.5 2.6 2.6	2.6	1.3 1.2 1.0 0.9	0.6	1.6 1.3 1.1 1.0	1.0 1.2 1.4	1.1 1.2 1.2	1.1 1.2	2.0 1.4 1.3	1.8 1.9	1.9	1.0 1.1 1.1	2.0	1.0
DATE	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19
TIME 0130 0300 0430	0.9	0.9	0.9	0.9	1.0	1.0	1.0	0.7	0.9	0.9	0.9	0.9	1.0	0.9
0600 0730 0900	0.9 0.8			0.9	1.0	1.0 1.1		0.7 0.8 0.9		0.9			1.0	
1030 1200 1330					0.9		1.0 0.9	1.0 0.9 0.8		0.8				
1500 1630 1800 1930	0.8		0.9		0.9 1.0	1.1 1.0	0.8	1.0		0.8 0.9		0.9 1.0		1.0
2100 2230 2400	0.9	0.9	1.0	1.0	1.0	1.0	0.8 0.7	0.9	0.9	0.9	0.9	1.0	0.9	0.9

	TE	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5
01	ME .30 .00	0.9	0.7	0.3	0.2	0.3	0.3	0.5	0.6	0.8	0.8	0.7	0.5	0,4	0.3
06 07 09	30 000 30 000		0.5 0.4 0.3	0.3 0.2		0.3 0.2	0.3	0.5 0.6	0.6 0.7			0.7 0.6	0.5	0.4	
13 15 16 18	00 30 00 30 30 30	0.9 0.8 0.8			0.2 0.3 0.3 0.2	0.2	0.4		0.7		0.8 0.7	0,6	0.7	0.5	0.3
	30	0.7	0.3	0.2	0.3	0.3	0.5	0.6	0.8	0.8	0.7	0.5	0.4	0.3	0.4
	TE	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19
01 03		0.4	0.5	0.5	0.6	0.4	0.3	0.3	0.4	0.5	0.5	0.4	0.3	0.4	0.5
04 06 07 09 10	00 30 00 30			0.5 0.6	0.6 0.5	0.4		0.3	0.4		0.5	0.4		0.4	0.5 0.6
13 15 16 18 19 21 22	30 00 30 00 30 30	0.4			0.5 0.4						0.4		0.3		
24		0.5	0.5	0.6	0.4	0.3	0.3	0.4	0.5	0.5	0.4	0.3	0.4	0.5	0.6
DA		3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2
01 03	30	0.6	0,5	0.4	0.4	0.5	0.8	0.5	0.2	0.3	0.4	1.0	1.0	0.9	0.9
04 06 07 09 10	00 30 00 30	0.6 0.5	0.5 0.4	0.4 0.3		0.5 0.6	0.8 0.7	0.5 0.4		0.3	0.4 0.5 0.6 0.7 0.8				0.9
13 15 16 18	30 00 30			0.3	0.4	0.6 0.7	0.7 0.6	0.4	0.2	0.4	0.9		1.0		
19 21 22 24	30 00 30	0.5	0.6	0.4	0.5	0.7	0.6	0.2	0.2	0 /	1.0	1.0	0.9	0.0	1.0
24	UU	0.5	0.4	0.4	0.5	0.8	0.5	0.3	0.3	0.4	1.0	1.0	0.9	0.9	1.0

LAKE MICHIGAN, STATION 20, 15 m continued.

DATE	4-3	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16
TIME														
0130	1.0	1.1	1.2											
0300			1.2											
0430			1.1											
0600														
0730			1.1											
0900			1.0											
1030														
1200														
1330														
1500			1.0											
1630	1.0		Popper	d torr										
1800	1.1		off v											
1930		1.1	OII V	vacer										
2100		1.2												
2230														
2400	1.1	1.2												

LAKE MICHIGAN - STATION 20. Depth 22 m. Start 28 November 1962, 1630 CST; end 22 April 1963, 1445 CST. Instrument serial no. 116, film record 20,108. No temperature correction.

DATE	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11
TIME														
0130		8.8	7.2	6.9	6.7	7.9	8.7	8.8	8.6	7.6	7.3	7.2	6.3	6.9
0300			7.2	6.9	6.8	8.0	8.8		8.5	7.5	7.3		6.4	6.8
0430			7.0	7.1	7.0	8.1			8.4	7.5	7.2	7.2	6.5	6.7
0600		8.8	6.9	7.2	7.2				8.3	7.4	7.2	7.1		6.7
0730		8.7	6.8	7.1	7.2			8.8		7.4	7.1	7.0	6.5	6.6
0900		8.6			7.0	8.1		8.7	8.3	7.3	7.1	6.9	6.6	6.4
1030		8.3			7.1	8.2			8.2		7.0	6.8	6.6	6.2
1200		7.9			7.1	8.3			8.0			6.7	6.7	6.0
1330		7.7			7.3	8.5	8.8		7.9			6.6	6.8	6.0
1500		7.4		7.1	7.5	8.6	8.7		7.8			6.4	6.9	6.5
1630		7.4		7.0	7.6		8.7		7.7		7.0	6.3	7.0	6.9
1800	9.0	7.3	6.8	7.0	7.7		8.8				7.1			7.0
1930	8.9	7.2	6.9	6.9	7.9		8.7				7.1			7.0
2100			6.7	7.0	8.0		8.8		7.7		7.2			7.1
2230	8.9		6.7	7.0	7.9			8.7	7.6					7.1
2400	8.8	7.2	6.9	6.8	7.8	8.6	8.8	8.6	7.6	7.3	7.2	6.3	7.0	7.2

DATE	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	21-20	12-21	12-22	12-23	12-24	12-25
TIME	- 0													
0130 0300	7.3	5.7	6.3	6.0	6.1	6.0	6.3	6.3	6.2	6.0	5.7	5.5	5.5	5.3
		6.0	6.2		. 1	5.9		6.2		5.9	5.6		5.5	
0430 0600	7.3	6.5	6.0		6.1	F 0			6.2	5.9 5.8	5.5		5.6	
0730	7.3	6.5		6.0 5.9	6.3	5.9			6.1			5.5 5.4		
0900	7.1	5.8		5.9	6.4	6.0 6.0			0.1	5.8 5.7	5.5	3.4	5.6	
1030	/.1	6.1		6.0	6.5	6.1				5.6	5.4		5.4	
1200	7.1	6.5	6.0	6.0	0.5	6.1				5.6	3.4		5.4	
1330	7.0	6.3	5.9	6.1		6.2				5.5			5.3	
1500	7.0	6.1	5.8	6.2		6.2				3.5	5.4	5.4	٥.5	
1630	6.9	5.6	5.8	6.3	6.5	6.3				5.5	5.5	5.5	5.3	
1800	6.8	5.6	5.9	6.3	6.4	0,0			6.1	5.6	3.3	5.4	5.2	
1930	6.7	5.8	5.9	6.2	6.3				6.0	5.6		٠,,	٠	
2100	6.6	6.3	5.7	6.2	6.2					5.7			5.2	
2230	6.4		5.7	6.1	6.1							5.4	5.3	
2400	6.0	6.3	5.9	6.0	6.1	6.3	6.3	6.2	6.0	5.7	5.5	5.5	5.3	5.3
DATE	12-26	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8
TIME														
0130	5.3	5.5	5.2	4.9	5.0	5.0	4.5	4.5	4.6	4.6	4.6	4.6	4.6	4.5
0300		5.4				4.9	4.5							
0430		5.3	5.2			4.8	4.4							
0600			5.1		5.0	4.7	4.4							
0730		5.3	5.1		4.9		4.5	, -						
0900 1030		5.2	5.0					4.5					4.6	
1200	5.3			4.9				4.0					4.5	
1330	5.4	5.2		5.0									4.5	
1500	5.4	5.3		5.0	4.9									
1630	5.5	٥, ٥			5.0									
1800	5,5				3.0									
1930						4.7								
2100			5.0			4.6								
2230		5.3	4.9			4.5								
2400	5.5	5.2	4.9	5.0	5.0	4.5	4.5	4.6	4.6	4.6	4.6	4.6	4.5	4.5
DATE	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22
TIME														
0130	4.5	4.5	4.4	4.3	4.2	4.0	3.0	3.9	3.6	3.6	3.6	3,1	3.0	2.9
0300							3.5	3.9			3.5		2.9	3.0
0430							3.7	3.8			3.4			3.0
0600		4.5		4.3		4.0	3.8	3.8				3.1	2.9	2.8
0730		4.4		4.2		3.9	3.9	3.7				3.0	2.8	2.6
0900						3.6								2.3
1030						3.5							2.8	2.1
1200						3.5							2.7	2.1
1330 1500						3.0		3.7					2.7	2.4
1630						2.6		3.6			3.4			2.6
1800						2.5		5.0			3.3			2.7
1930					4.2	2.6					3.2			2.5
2100			4.4		4.1	2.6					3.1		2.7	2.2
2230			4.3		4.0	2.7							2.8	2.1
2400	4.5	4.4	4.3	4.2	4.0	2.8	3.9	3.6	3.6	3.6	3.1	3.0	2.9	2.1

DATE	· 1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5
0130 0300 0430 0600 0730	2.1	2.6	2.5	0.2 0.3 0.1 0.0	0.6 0.8 1.5 1.7 2.0	0.8 0.8 1.0 0.8 0.8	1.7	1.2 1.2 1.3 1.7	1.7 1.7 1.9 2.0 1.7	1.7 1.8 1.8 1.9	1.5	1.2 1.0 1.0 1.3 1.2	1.4 1.5 1.5	1.6 1.5 1.5 1.4
0900 1030 1200 1330 1500 1630 1800 1930 2100 2230	2.1 2.2 2.3 2.3 2.4 2.4 2.5	2.6 2.5	2.5 2.4 1.7 1.5 1.4 1.1 0.7 0.5	0.0 0.2 0.1 0.0	2.3 2.6 2.5 2.2 1.8 1.6 1.3 1.0	1.2 1.6 2.1 2.1 1.9 1.9 2.2 1.8 1.6	1.7 1.6 1.3 1.1 1.0 1.1 1.2 1.3 1.2	1.4 1.3 1.2 1.3 1.4 1.4 1.2 1.3 1.4	2.0 2.0 2.1 2.1 2.2 2.2 1.9 1.5	1.7 2.0 2.0 1.7 2.0 2.0 1.7 1.5 1.5	1.5 1.4	1.0 0.9 0.9 1.3 1.3 1.4 1.5 1.5		1.4 1.2 1.1 1.0 0.7 0.6 0.5 0.4 0.3
2400 DATE	2.6 2-6	2.5 2-7	0.2 2-8	0.2 2-9	0.8	1.6 *2-11	1.2 2-12	1.6	1.6	1.3	1.3	1.2	1.6	0.3
TIME					2-10	-		2-13	2-14	2-15	2-16	2-17	2-18	2-19
0130 0300 0430 0600	0.3	0.4	0.8 0.9 0.8 0.7	0.6	0.7	1.1	1.3 1.3 1.1 1.0	0.4 0.4 0.6	0.7 0.6 0.5	0.5	0.5	0.5 0.5 0.6	0.6	0.7 0.7 0.8
0730 0900 1030 1200 1330		0.3			0.7	1.3	0.9 0.9 0.8 0.7 0.6	0.8 1.1 1.2 1.1						0.8
1500 1630 1800 1930 2100	0.3	1.0 0.6 0.5	0.7 0.6 0.6 0.5		0.8	1.4	0.7 0.5 0.4	1.1 0.8 0.7 0.6			0.5 0.4		0.6 0.5	0.9 0.8 0.7 0.6
2230 2400	0.4	0.5	0.5	0.6	0.9	1.3	0.5	0.7	0.5	0.5	0.4	0.6	0.5	0.6 0.7 0.7
DATE	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5
0130 0300 0430	0.8 0.7 0.6	0.3 0.3 0.2	0.1	0.1	0.2	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
0600 0730 0900	0.6	0.2				0.1 0.2	0.3							
1030 1200 1330 1500		0.1		0.1 0.2										
1630 1800 1930 2100 2230	0.6 0.5 0.4 0.4			0.2 0.1 0.2										
2400	0.3	0.1	0.1	0.2	0.1	0.2	0,.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3

DATE	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19
0130 0300	0.3	0.3	0.1	0.1	0.1 0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
0430 0600		0.3			0.2									
0730 0900		0.2												
1030 1200		0.1												
1330														
1500 1630														
1800 1930														
2100 2230														
2400	0.3	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
DATE TIME	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2
0130 0300	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.4	0.8	0.8	0.9	0.9
0430 0600										0.5		0.8		0.9
0730 0900												0.9		
1030 1200										0.5			0.9	
1330 1500				0.3		0.4				0.6			0.8	0.8
1630				0.4		0.4				0.7		0.9		0.9
1800 1930										0.8		0.8		
2100 2230									0.3	0.8				
2400	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.4	0.7	0.8	0.7	0.8	0.9
DATE TIME	4-3	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16
0130	0.9	0.9	1.0	1.0	1.0	1.0	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.5
0430 0600			0.9											1.4
0730 0900						1.0								
1030 1200						1.2								
1330 1500													1.3	
1630 1800									1.2		1.3 1.2		1.4	
1930 2100									1.3					
2230 2400	0.9	0.9	0.9	1.0	1.0	1.2	1.2	1.2	1.3	1.3	1.2	1.3	1.5	1.4
2400	0.5	3.5	3.5	1.0	1:0					1.0				

LAKE MICHIGAN, STATION 20, 22 m continued.

DATE	4-17	4-18	4-19	4-20	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930 2100 2230	1.4	1.5	1.5 1.5 1.6	1.6	1.6	1.6 1.6 Remov	ved from at 14	om.	4-25	4-26	4-27	4-28	4-29	4-30
2400	1.5	1.5	1.6	1.6	1.6									

LAKE MICHIGAN - STATION 20. Depth 30 m. Start 28 November 1962, 1630 CST; end 22 April 1963, 1445 CST. Instrument serial no. 107, film record 20,109. No temperature correction.

DATE	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11
TIME														
0130		8.3	6.6	6.1	5.7	7.0	8.4	8.5	8.2	7.1	7.0	7.0	6.0	6.3
0300			6.4	6.0		6.9	8.4		8.2		7.0	7.0	6.0	6.3
0430		8.3	6.3	5.9	5.7	6.9	8.3	8.5	8.1		6.9	6.9	6.1	6.2
0600		8.2		6.0	6.0	7.1	8.4	8.4	8.1		6.9	6.7		6.1
0730		8.1		6.1		7.2		8.3	8.0		6.8	6.5		
0900		8.0				7.5		8.2	8.0	7.1	6.8	6.4	6.1	6.1
1030		7.5				7.9		8.4	7.9	7.0	6.7	6.3	6.3	6.0
1200		7.3		6.1	6.0				7.6			6.2	6.4	5.9
1330		7.1		6.0	6.1				7.5			6.1	6.5	5.8
1500		6.9	6.3	5.7	6.2	7.9	8.4		7.3			6.1		5.9
1630		6.9	6.1	5.5	6.3	8.1	8.3		7.2		6.7	6.0		6.0
1800	8.4	6.8		5.9	6.4	8.2					6.8			6.4
1930		6.7	6.1	5.8	6.7			8.4	7.2		6.8		6.5	
2100		6.6	6.0		6.4		8.3	8.3	7.1		6.9		6.4	6.4
2230			6.1		6.4		8.4				6.9		6.3	6.5
2400	8.4	6.6	6.1	5.8	6.6	8.2	8.5	8.3	7.1	7.0	7.0	6.0	6.3	6.7

DATE	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25
0130 0300	6.9	5.4 5.8	6.0 6.0	5.7	5.9	5.7	5.9 6.0	5.9	5.9	5.7 5.7	5.4 5.4	5.2	5.2	5.1
0430	6.9	6.1	5.9		5.9					5.6	5.3			
0600 0730	6.8 6.8	6.1			6.0	5.7				5.5			5.2	
0900	6.7	5.5		5.7	6.0 6.1	5.8 5.9				5.5 5.4	5.3		5.3 5.2	
1030	6.6	5.6	5.9	5.9	0.1	3.5			5.9	5.4	5.2		5.1	
1200	6.6	6.0	5.8						5.8	5.3			3.1	
1330	6.5	5.9	5.6							5.2			5.1	
1500 1630	6.4 6.3	5.7 5.1		5.9 6.0						5.3			5.0	
1800	6.2	5.3		5.9	6.1									
1930	6.1	5.5	5.6	3.,	6.0				5.8	5.3				
2100	6.1	6.0	5.5		6.0				5.7	5.4				
2230	5.9		5.5		5.9		6.0						5.0	
2400 DATE	5.6 12-26	6.0	5.6	5.9	5.8	5.9	5.9	5.9	5.7	5.4	5.2	5.2	5.1	5.1
TIME	12-26	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8
0130	5.2	5.2	5.1	5.0	5.0	4.9	4.4	4.3	4.3	4.3	4.3	4.3	4.4	4.4
0300 0430														
0600						4.9	4.4					4.3		
0730		5.2				4.8	4.3					4.4		
0900		5.1												
1030 1200			5.1 5.0			4.8								
1330			3.0			4.7								
1500						4.7								
1630						4.6								
1800														
1930 2100					5.0 4.9	4.6								
2230					4.9	4.5								
2400	5.2	5.1	5.0	5.0	4.9	4.4	4.3	4.3	4.3	4.3	4.3	4.4	4.4	4.4
DATE	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22
TIME 0130	4.4	4.3	4.2	4.1	4.1	0.0		0.7						
0300	4 - 4.	4.3	4.2	4.1	4.1	3.9	3.1 3.2	3.7	3.6	3.7	3.7 3.7	3.1	3.0	3.0
0430							3.4				3.6			
0600						3.9	3.4		3.6		3.6			3.0
0730						3.8	3.7		3.7		3.5			2.7
0900						3.5							3.0	2.4
1030 1200		4.3				3.3 3.2					3.5 3.4		2.9	2.1
1330		4.4				3.1					3.4		2.9	2.1
1500					4.1	3.0		3.7			3.4			2.5
1630			4.2		4.0	2.5		3.6			3.3			2.7
1800	4.4		4.1			2.5					3.3		2.8	2.8
1930 2100	4.3					2.6					3.2	3.1	2.9	2.5
2230					4.0	2.7					3.1	3.0	2.9	2.1
2400	4.3	4.2	4.1	4.1	3.9	2.9	3.7	3.6	3.7	3.7	3.1	3.0	3.0	2.1

DATE	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5
TIME 0130 0300	2.1	2.5	2.4	0.1	0.2	1.5 1.9	1.6 1.5	1.2	1.6	2.1	1.5 1.3	1.2	1.4 1.3	1.3
0430 0600 0730 0900 1030			2.4 2.3	0.1	1.3 1.7 2.1 2.2 2.3	2.1 2.1 2.3 2.2	1.5 1.4	1.4 1.5 1.6 1.3	2.0		1.3 1.4	1.2 1.3 1.4	1.3 1.4 1.4 1.5	1.3 1.2
1200 1330 1500	2.1		2.2 1.8 1.4	0.0	2.3 2.2 2.1	2.2 2.1	1.4 1.3 1.2	1.1 1.3 1.2						1.1 1.1 1.0
1630 1800 1930	2.3 2.4	0.5	1.2 1.1 0.9	0.1	2.0 1.4 1.1	0.1	1.3	1.2 1.4	2.0 2.1	2.1 1.9 1.8			1.5 1.4	0.9 0.7 0.4 0.3
2100 2230 2400	2.4 2.5	2.5 2.4 2.4	0.5 0.3 0.1	0.0 0.1	0.6 0.5 1.1	2.1 1.7 1.6	1.3 1.2 1.2	1.4	2.1	1.6 1.3	1.4	1.4	1.4	0.2 0.2
DATE	2-6	2-7 '	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19
0130 0300 0430 0600 0730 0900	0.2	0.2	1.1 1.1 1.0 0.9	0.4 0.5 0.6 0.5 0.4 0.3	0.4	1.0	1.1	0.4 0.5 1.1 1.3	1.0 0.8 0.5 0.4 0.3	0.2	0.2	0.1 0.1 0.2	0.3	0.6 0.6 0.7 0.9 1.0
1030 1200 1330 1500 1630 1800		0.2 0.8 1.1 1.1 0.6 0.2	0.7 0.6 1.0 0.7 0.4 0.3	0.3 0.4 0.6	0.6 0.6 0.7 0.9 0.9	1.1 1.2 1.2 1.1	0.9 0.9 1.1 1.0 0.9 0.7	1.3 1.2 1.2 1.1	0.3 0.2		0.1	0.2		1.0 0.9 0.9 0.8 0.8
1930 2100 2230 2400	0.1 0.2 0.3	0.2 0.4 1.0	0.3 0.4 0.4	0.9 0.7 0.5 0.4	0.9 0.8 0.9 1.0	1.1	0.5	1.1 1.0 1.1 1.1	0.2	0.2	0.1	0.3	0.3 0.4	0.7 0.7 0.6 0.6
DATE	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5
TIME 0130 0300 0430 0600 0730	0.6 0.6 0.5	0.2 0.2 0.1	0.1	0.0	0.1 0.1 0.0	0.0	0.1 0.1 0.2 0.3 0.2	0.2	0.2 0.1 0.2	0.2 0.2 0.3 0.2	0.2 0.2 0.1	0.1	0.1	0.1 0.1 0.2 0.2 0.1
0900 1030 1200 1330 1500	0.5			0.1		0.1		0.1		0.2	0.1 0.2			
1630 1800 1930 2100 2230	0.4 0.3 0.3 0.2		0.1	0.1 0.0 0.1			0.2 0.3 0.2		0.2 0.1 0.2	0.3 0.3 0.2	0.2 0.1			0.1 0.0 0.0
2400	0.2	0.1	0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	$0.1 \\ 0.1$

DATE	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19
0130	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
0300 0430														
0600 0730														
0900						0.1								
1030 1200						0.0			0.0					
1330									0.1					
1500 1630														
1800 1930														
2100														
2230 2400	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
DATE	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2
TIME 0130	0.0	0.1	0.1	0.1	0.2	0.2	0.0	0.1	0.2	0.2	0.5	0.5	0.3	0.6
0300 0430												0.4	0.5	0.7
0600				0.1									0.3	0.8
0730 0900						0.2						0.4	0.4	0.8
1030						0.1				0.2		0.5	0.5	
1200 1330										0.3				0.9
1500										0.4				0.9
1630 1800							0.0			0.5 0.6		0.5	0.5	
1930 2100	0.0					0.1	0.1			0.6		0.4	0.6	
2230	0.1					0.0		0.1						
2400	0.1	0.1	0.1	0.2	0.2	0.0	0.1	0.2	0.2	0.5	0.5	0.4	0.6	0.9
DATE TIME	4-3	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16
0130 0300	0.9	1.0	1.0	0.8	0.8	1.0	1.1	1.1	1.0	1.0	1.1	1.1	1.2	1.2
0430				0.8										
0600 0730	0.9		1.0	0.7	0.8	1.0								
0900 1030	1.0			0.7 0.8	0.9	1.2				1.0				
1200			0.9	0.0						1.1				
1330 1500			0.8					1.1						
1630					0.9			1.0						1.2
1800 1930					1.0									1.1
2100 2230						1.2						1.1		
2400	1.0	1.0	0.8	0.8	1,0	1.1	1.1	1.0	1.0	1.1	1.1	1.2	1.2	1.1

LAKE MICHIGAN, STATION 20, 30 m continued.

DATE	4-17	4-18	4-19	4-20	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30
TIME														
0130	1.1	1.1	1.1											
0300														
0430														
0600														
0730														
0900														
1030														
1200			1.1											
1330			D = = = =	d ends										
1500			Torn		•									
1630			10111	orr.										
1800														
1930														
2100														
2230														
2400	1.1	1.1												

LAKE MICHIGAN - STATION 39. Depth 15 m. Start 2 December 1962, 1650 CST; end 19 July 1963, 1000 CST. Instrument serial no. 127, film record 20,185. No temperature correction.

DATE	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15
TIME														
0130		6.4	6.2	6.2	6.1	6.0	5.7	5.7	6.0	6.0	5.8	5.7	5.6	5.5
0300							5.7	5.8						
0430			6.2		6.1	6.0	5.6	5.8					5.6	
0600			6.1	6.2	6.0	5.9		5.9		6.0			5.5	5.5
0730				6.1	6.1			5.9	6.0	5.9			5.4	5.4
0900		6.4				5.9		6.0	5.9	5.8				
1030		6.3				5.8				5.8				
1200			6.1							5.7		5.7		
1330			6.2			5.8						5.6		
1500			6.1			5.7					5.8	5.5		
1630		6.3							5.9		5.7	5.6	5.4	
1800	6.5	6.2					5.6		6.0				5.5	
1930	6.4		6.1				5.7				5.7			
2100			6.2							5.7	5.8			
2230					6.1					5.8				
2400	6.4	6.2	6.2	6.1	6.0	5.7	5.7	6.0	6.0	5.8	5.8	5.6	5.5	5.4

DATE	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
TIME 0130	5.4	5.3	5.2	5.5	5.4	5.4	5.4	5.2	5.1	5.0	5.0	5.0	4.9	4.8
0300 0430	5.3		5.3 5.4	5.4	5.3	5.3	5.3	5.2	5.0				4.8	4.8
0600 0730			5.5 5.4	- ,				5.1 5.0				5.0 4.9		4.7 4.7
0900			5.4	5.4 5.5				3.0				4.9		4.6
1030 1200							5.3 5.1							
1330			5.4	5.5			5.0							
1500	E 2	5.3	5.5	5.4		5.3	5.1	5.0						
1630 1800	5.3 5.4	5.2		5.4	5.3	5.4	5.1	5.1						
1930 2100				5.5	5.4		5.2							
2230	5.4			5.5										
2400	5.3	5.2	5.5	5.4	5.4	5.4	5.2	5.1	5.0	5.0	5.0	4.9	4.8	4.6
DATE	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
0130	4.6	4.5	4.6	4.5	4.6	4.5	4.5	4.5	4.3	4.5	4.5	4.5	4.5	4.3
0300 0430	4.5		4.6						4.4				4.5 4.4	4.3
0600			4.5		4.6									4.2
0730 0900					4.5			4.5						
1030				4.5										
1200 1330				4.6						4.5 4.4			4.4	
1500		4.5						4.4	4.4		4.5		4.3	
1630 1800		4.6	4.5 4.6		4.5			4.5	4.5	4.4	4.6			
1930					4.6			4.5		4.5				
2100 2230			4.6 4.5		4.6 4.5			4.4 4.4			4.6			
2400	4.5	4.6	4.5	4.6	4.5	4.5	4.5	4.3	4.5	4.5	4.5	4.5	4.3	4.2
DATE	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26
0130	4.2	4.2	4.2	4.0	4.0	3.9	4,0	3.7	3.8	3.8	3.7	3.5	2.7	2.6
0300 0430								3.7 3.6		3.7	3.7		2.8	2.5
0600		4.2			4.0		4.0		3.8				2.7	2.4
0730 0900		4.1	4.2 4.1		3.9		3.9 3.9	3.6 3.5	3.7		3.6 3.5		2.8	2.3
1030							3.8				3.5			
1200 1330			4.1 4.0				3.8	3.5 3.6	3.7				2.8	
1500							3.9		3.8			3.5	2.6	
1630 1800		4.1				3.9 4.0	3.9 3.8	3.6 3.7				3.3	2.6	
1930							3.8	3.8				3.0	2.5	
2100 2230							3.7					2.9	2.5	2.3
2400	4.2	4.2	4.0	4.0	3.9	4.0	3.7	3.8	3.8	3.7	3.5	2.8	2.6	2.2

DATE	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
0130 0300	2.2	2.1	2.0	2.5 2.4	2.4 2.5	2.3	2.5	2.5	2.5	2.5	2.5	2.5	2.2	2.0
0430 0600 0730 0900 1030 1200 1330	2.2 2.1 2.1 2.0	2.1 2.0	2.1 2.2 2.3 2.4 2.5 2.6	2.4 2.5 2.6 2.6 2.5	2.5 2.4		2.4 2.3 2.3 2.4 2.5		2.5	2.4	2.5	2.5 2.4	2.2 2.1 2.1 2.0 2.0	
1500 1630 1800 1930	2.1		2.7 2.7 2.6	2,5	2.3	2.3 2.4 2.4 2.5		2.5	2.4 2.5	2.5	2.4	2.4 2.3	2.1	
2100 2230			2.6 2.5	2.4							2.5	2.2	2.0	
2400 DATE	2.1 2-10	2.0 2-11	2.5 2-12	2.4 2-13	2.3 2-14	2.5 2-15	2.5 2-16	2.6 2-17	2.5 2-18	2.5 2-19	2.5 2-20	2.2 2-21	2.0 2-22	2.0 2-23
TIME 0130	2.0	2.0	1.5	1.2	1.0		1.0	0.8	0.7		0.7			
0300 0430	1.9 1.9	1.9 1.9	1.5	1.2	1.1	1.0	0.9	0.0	0.7	0.7 0.8 0.7	0.7	0.7	0.7	0.7
0600 0730 0900 1030	2.0	1.8 1.7	1.5 1.4	1.2 1.1 1.0			0.9 0.8	0.8 0.7				0.7 0.6	0.7 0.6	0.7 0.6
1200 1330 1500 1630 1800	2.0 1.9	1.7 1.8	1.4		1.1		0.8 0.7				0.6 0.7	0.6 0.7	0.6 0.7	0.6 0.7
1930 2100 2230	1.9 2.0	1.5 1.4	1.3				0.7 0.8							
2400 DATE	2.0	1.4	1.2	1.0	1.0	1.0	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7
TIME	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6_	3-7	3-8	3-9
0130 0300 0430	0.7	0.7	0.7 0.7 0.6	0.6	0.7	0.7	0.6 0.6 0.5	0.6	0.5	0.6	0.6	0.6	0.7	0.7
0600 0730 0900 1030 1200						0.7		0.6	0.5 0.6					
1330 1500 1630 1800 1930												0.6		
2100 2230 2400	0.7	0.7	0.6	0.6 0.7 0.7	0.7	0.6	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7

DATE	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23
0130 0300	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.5	0.4	0.5	0.5	0.5	0.5
0430 0600		0.7 0.6							0.5	0.5				0.5
0730 0900 1030		0.6					0.6		0.4					0.6
1200 1330		017				0.7 0.6	0.3							
1500 1630														
1800 1930 2100														
2230 2400	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.6
DATE	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6
TIME 0130 0300	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.9	1.0	1.0	1.0	1.1	1.1
0430 0600 0730	0.6 0.5					0.8								1.2
0900 1030		0.6				•••		0.8				1.0 1.1		
1200 1330 1500		0.7						0.9						
1630 1800					0.7	0.7 0.8			0.9					
1930 2100	0.5 0.6				0.8				1.0					
2230 2400	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.9	1.0	1.0	1.0	1.1	1.1	1.2
DATE TIME	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20
0130 0300 0430	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.4	1.4
0600 0730														
0900 1030														
1200 1330 1500								1.2						• /
1630 1800								1.3						1.4 1.5
1930 2100												1.3 1.4		
2230 2400	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.4	1.4	1.5

LAKE MICHIGAN, STATION 39, 15 m continued.

DATE TIME	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4
0130 0300	1.5	1.6	1.7	1.8	1.9	1.9	1.9	1.9	2.0 1.9	1.9	2.0	2.0	2.1	2.1
0430 0600 0730		1.6 1.7							1.,	1.9 2.0		2.0 2.1		
0900 1030 1200 1330	1.5							1.9 2.0						
1500 1630 1800 1930	1.6		1.7 1.8											
2100 2230 2400	1.6	1.7	1.8	1.8 1.9 1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.1	2.1	2.1
DATE	5-5	5-6	5-7	5-8	5-9	5-10	5-11	5-12	5-13	5-14	5-15	5-16	5-17	5-18
TIME 0130 0300 0430	2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.5	2.5	2.6
0600 0730 0900 1030		2.1												
1200 1330 1500 1630				2.2							2.4		2.5 2.6	
1800 1930 2100									2.3		2.5			
2230 2400	2.1	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.5	2.5	2.6	2.6
DATE	5-19	5-20	5-21	5-22	5-23	5-24	5-25	5-26	5-27	5-28	5-29	5-30	5-31	6-1
0130 0300	2.6	2.6	2.6	2.6	2.7	2.8	2.9							
0430 0600 0730 0900 1030 1200	2.6 2.5 2.6			2.6 2.7	2.7	2.8 2.9								
1330 1500 1630 1800 1930 2100							2.9 Film away. Data							
2230 2400	2.6	2.6	2.6	2.7	2.8	2.9								

LAKE MICHIGAN - STATION 39. Depth 30 m.
Start 2 December 1962, 1650 CST; end 19 July 1963, 1000 CST.
Instrument serial no. 128, film record 20,186. No temperature correction.

DATE	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15
TIME 0130		6.0	6.0	6.0	5.9	5.8	5.5	5.6	5.9	6.0	5.7	5.6	5.5	5.3
0300 0430						5.7		5.6 5.7		6.0 5.9			5.5	
0600					5.9	5.7		3.7		3.9			5.4 5.3	
0730		6.0			6.0	5.6			5.9	5.9			J. J	
0900		6.1						5.7	5.8	5.8				
1030 1200		6.0				5.6		5.8		5.8				
1330		6.0 5.9			6.0	5.5				5.7 5.6		5.6 5.4		
1500		J. J			5.9			5.8		3.0		3.4		
1630		5.9						5.9	5.8			5.4		
1800	6.2	5.8							5.9	5.6		5.5		
1930 2100	6.1 6.0	5.9 5.9			5.9				5.9	5.7				
2230	0.0	6.0			5.8				6.0					
2400	6.0	6.0	6.0	6.0	5.8	5.5	5.5	5.9	6.0	5.7	5.7	5.5	5.3	5.3
DATE	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
TIME 0130	5.3	5.3	5.0	5.5	F 2	F 0	F 0	F 0		, ,				
0300	٥.٥	3.3	5.2	5.4	5.3 5.3	5.2	5.2	5.0	5.0	4.9	4.9	4.9 4.9	4.6	4.5
0430			5.3	5.3	5.2	5.2	5.2					4.8		
0600				5.3		5.1	5.1			4.9		4.7		4.5
0730				5.4						4.8				4.4
0900 1030		5.3		5.5			5.1 5.0							
1200		5.2				5.1	4.9							
1330		5.1		5.5		5.2						4.7		
1500		5.0		5.4			4.9					4.6		
1630 1800			5.3 5.4	5.3			5.0						4.6 4.5	
1930			3.4										4.5	
2100			5.4											4.4
2230			5.5							4.8				4.3
2400	5.3	5.0	5.5	5.3	5.2	5.2	5.0	5.0	5.0	4.9	4.9	4.6	4.5	4.3
DATE TIME	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	. 1-12
0130	4.3	4.3	4.5	4.2	4.2	4.2	4.3	4.4	4.0	4.3	4.5	4.3	4.3	4.0
0300			, -			4.3			4.1					
0430 0600			4.5 4.4				4.3	4.4	4.2	4.3	4.5		4.3	
0730			4.4				4.2	4.5	4.2	4.1	4.4		4.2	
0900							4.2		4.1		4.4		4.1	
1030							4.3		4.1	4.1	4.3			
1200 1330		4.3	4.4				4.3		4.2 4.2	4.2				
1500		4.4	4.3				7.7		4.3				4.1	
1630													4.0	
1800								4.3		4.2				
1930 2100			4.3					4.2 4.1		4.3 4.4				
2230		4.4	4.2					4.1		4.4				
2400	4.3	4.5	4.2	4.2	4.2	4.3	4.4	4.0	4.3	4.4	4.3	4.3	4.0	4.0

DATE TIME	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26
0130 0300 0430	4.0	4.0	4.0	3.7	3.8 3.7	3.7	3.8	3.5	3.5	3.5	3.5	3.3	2.9	2.7 2.7 2.6
0600 0730 0900				3.7			3.8 3.7	3.5			3.5 3.4			2.5
1030 1200			4.0 3.9	3.8				3.4						
1330 1500 1630			3.9 3.8			3.7	3.7 3.6	3.4	3.5 3.6		3.4 3.3	3.3	2.9	
1800 1930 2100			3.0			3.8	3.6	3.5		3.5 3.6		3.2 3.1 3.0 2.9	2.8 2.7 2.6	2.4 2.3
2230 2400	4.0	4.0	3.8	3.8	3.7	3.8	3.5 3.5	3.5	3.6 3.5	3.6 3.5	3.3	2.9	2.6	2.3 2.2
DATE TIME	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
0130 0300 0430 0600	2.2	2.0	2.0 2.0 2.1 2.1	2.6 2.6 2.5	2.7 2.6 2.5	2.4 2.4 2.5 2.6	2.5 2.6 2.4 2.4	2.5	2.5 2.4	2.5	2.5	2.5	2.3 2.2 2.1	1.9
0730 0900 1030	2.2 2.1	2.0 2.1 2.1	2.2 2.2 2.3	2.5 2.6 2.7		2.6 2.5 2.4	2.5						2.1 2.0	1.8
1200 1330 1500 1630	2.1 2.0	2.0 2.0 1.9	2.5 2.6 2.7	2.7 2.6	2.5 2.6		2.5 2.6		2.4			2.5	2.0 2.1 2.3	1.9
1800 1930 2100		1.9	2.7 2.6	2.6 2.5	2.6 2.5	2.4 2.5	2.6 2.5		2.3			2.4	2.3 2.2 2.2 2.0	1.8
2230 2400	2.0	2.0 2.1	2.6 2.5	2.5 2.6	2.5 2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.3	1.9	1.8
DATE TIME	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23
0130 0300 0430	1,8	1.9 1.8 1.6	1.4 1.4 1.6	1.3 1.4 1.5	1.2 1.3 1.1	0.9 0.8 0.7	0,6	0.4	0.4	0.3	0.3	0.3	0.2	0.2
0600 0730 0900	1.8 1.7	1.5	1.6	1.5	1.0	0.6	0.6		0.4 0.3			0.3		
1030 1200 1330 1500	1.7	1.6 1.8 1.9 1.8	1.5 1.3 1.5 1.8	1.1 1.1 1.2 1.0	1.0		0.5				0.3 0.4			0.2
1630 1800 1930	1.8	1.9 1.4 1.3	1.7 1.6 1.4	1.2	0.9						0.4	*		0.2
2100 2230 2400	1.8 1.9	1.5 1.4 1.4	1.3 1.4 1.3	1.3 1.1 1.3	0.9	0.6	0.5 0.4 0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.1

DATE	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9
0130 0300	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
0430 0600 0730 0900 1030 1200	0.2 0.1	0.2	0.1 0.2							0.2				
1330 1500 1630 1800 1930	0.1 0.2	0.1	0.2 0.1							0.2	0.2 0.1			
2100 2230 2400	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
DATE	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23
TIME 0130 0300 0430	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2 0.2 0.1	0.2	0.2 0.2 0.1	0.2 0.1
0600 0730 0900 1030						0.1 0.2			0.2 0.1	0.2		0.2	0.1	0.1 0.2
1200 1330 1500										0.1		0.1	0.2	0.2
1630 1800 1930 2100 2230						0.2 0.1		0.1 0.2	0.1 0.2	0.1 0.2	0.1 0.2	0.2		
2400	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
DATE TIME	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6
0130 0300	0,2	0.2	0.3	0.3	0.4	0.4	0.4	0.6	0.7	0.7	0.9	0.9	1.0	1.0
0430 0600 0730		0.2					0.4							
0900 1030 1200 1330										0.7				
1500 1630 1800												0.9 1.0		
1930 2100 2230				0.3	0.4		0.5		0.7	0.8				
2400	0.2	0.3	0.3	0.4	0.4	0.4	0.6	0.6	0.7	0.9	0.9	1.0	1.0	1.0

DATE	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20
0130	1.0	1.0	1.1	1,1	1.1	1.1	1.1	1.2	1.1	1.2	1.3	1.4	1.4	1.5
0300 0430 0600 0730 0900			1.1 1.0			1.1 1.0		1.2 1.1	1.1	1.2				
1030 1200 1330 1500		1.0 1.1	1.0			1.0			1.2	1.3	1.3	1.4	1.4 1.5	
1630 1800 1930 2100 2230						1.1	1.1					1.3 1.4		
2400	1.0	1.1	1.1	1.1	1.1	1.1	1.2	1.1	1.2	1.3	1.4	1.4	1.5	1.5
DATE	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4
0130	1.5	1.6	1.7	1.7	1.8	1.8	1.9	2.0	2.0	2.0	2.1	2.1	2.3	2.4
0300 0430 0600 0730 0900						1.8 1.9								
1030 1200		1.6		1.7			1.9					2.1		
1330		1.7		1.8			2.0					2.2		
1500 1630	1.5 1.6												2.3	
1800	1.0												2.4	
1930 2100										2.0 2.1		2.2		
2230 2400	1.6	1.7	1.7	1.8	1.8	1.9	2.0	2.0	2.0	2.1	2.1	2.3	2.4	2,4
DATE	5-5	5-6	5-7	5-8	5-9	5-10	5-11	5-12	5-13	5-14	5-15	5-16	5-17	5-18
TIME 0130 0300 0430	2.4	2.4	2.3	2.2	2.2	2.4	2.6		, 					
0600 0730 0900		2.4 2.3			2.2 2.3		2.6 Film away.	torn						
1030 1200			2.3			2.4		ends.						
1330 1500 1630 1800 1930 2100			2.2		2.3 2.4	2.3								
2230 2400	2.4	2.3	2.2	2.2	2.4	2.5								

LAKE MICHIGAN - STATION 39. Depth 60 m. Start 2 December 1962, 1650 CST; end 19 July 1963, 1000 CST. Instrument serial no. 125, flim record 20,187. No temperature correction.

DATE	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15
0130		5.7 5.8	5.9 5.9	5.9 6.0	5.9	5.7	5.5	5.4	5.7	5.7 5.7	5.5 5.6	5.5	5.3	5.2
0430		5.8	5.8	6.0						5.8	5.0	5.5		
0600		5.9	5.7	5.8						5.8		5.4		
0730		5.9	5.8	5.8		5.7				5.7	5.6	5.4	5.3	
0900		6.0		5.9	5.9	5.6		5.4		5.7 5.6	5.7	5.5	5.2	
1030 1200		5.7 5.8			5.6 5.8			5.5		5.6				
1330		5.8	5.8		5.9			5.5		5.5	5.7			
1500		5.9	5.9		5.8	5.6		5.6		5.4	5.6	5.5		
1630		5.8	5.8	5.9	5.6	5.5	5.5					5.4		
1800 1930	6.0	5.7 5.7		5.8	5.7 5.8		5.4 5.5	5.6			5.6 5.5	5.3		
2100	6.0	5.8	5.8	5.8	5.8		3.3	5.7		5.4	3.3			
2230	5.8	5.9	5.9	5.7	5.8			J.,		5.5				
2400	5.9	5.9	5.9	5.9	5.7	5.5	5.5	5.7	5.7	5.5	5.5	5.3	5.2	5.2
DATE	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
TIME 0130	5.2	5.2	5.0	5.2	5.2	5.2	5.1	4.9	4.9	4.9	4.8	4.8	4.8	4.7
0300	3.2	5.1	3.0	3.2	٥.2	3.2	J.1	4.0	7.0	4.0	7,0	4.0	4.0	4.6
0430														4.5
0600			5.0	5.2				, ,						
0730 0900			5.1 5.2	5.1				4.9 5.0			4.8 4.9		4.8	
1030			3.2	5.1				3.0			4.7		4.7	
1200				5.2			5.1							
1330						5.2	5.0							4.5
1500						5.1	5.0							4.4
1630 1800		5.1 5.0					4.9	5.0		4.9 4.8	4.9			
1930		5.0						4.9		4.0	4.8			4.4
2100														4.3
2230				5.2										
2400	5.2	5.0	5.2	5.1	5.2	5.1	4.9	4.9	4.9	4.8	4.8	4.8	4.7	4.3
DATE	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
TIME 0130	4.3	4.3	4.2	4.2	4.2	4.1	4.1	4.2	4.2	4.2	4.1	4.1	4.1	4.1
0300	4.5	4.3									4.2			
0430		4.2												
0600														
0730 0900							4.1							
1030							4.2							
1200					4.2						4.2			
1330					4.1						4.1			
1500				4.2 4.1						4.2				
1630 1800				4.1						4.1				
1930														
2100													4.1	
2230	, .	, ,	, ,	, 1	. 1	. 1	4.0	4.0	4.2	4 1	4.1	4 1	4.0	4.1
2400	4.3	4.2	4.2	4.1	4.1	4.1	4.2	4.2	4.2	4.1	4.0	4.1	4.0	4.1

DATE	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26
0130 0300 0430 0600 0730	4.1	4.0	4.0	3.9	3.9 3.9 3.8	3.8	3.8	3.7	3.6	3.6	3.5	3.2	3.0	3.0 3.0 2.9 2.9 3.0
0900 1030 1200 1330 1500 1630	4.1					3.8 3.7	3.8 3.7	3.7 3.6			3.5 3.4 3.3	3.2 3.1	3.0 2.9	2.9 2.8 3.0 2.8 2.9
1930 2100 2230 2400	4.0	4.0	4.0 3.9 3.9	3.9	3.8	3.7	3.7	3.6	3.6	3.6 3.5 3.5	3.3 3.2 3.2	3.1 3.0	2.9 3.0 3.0	2.9
DATE	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
0130 0300 0430	2.8 2.8 2.7	2.6	2.5 2.6 2.6	2.6	2.6	2.6	2.4 2.6 2.5	2.5	2.4	2.4	2.4	2.4	2.2	2.1 2.0 2.0
0600 0730 0900 1030	2.6 2.7 2.7	2.6	2.7 2.8 2.7 2.6	2.6 2.7	2.7 2.7 2.6	2.6 2.5 2.6 2.7	2.4 2.6 2.7 2.5	2.5 2.4 2.5				2.4	2.1	2.1 2.1 2.0 2.3
1200 1330 1500	2.6 2.5 2.4	2.7	2.5	2.7	2.0	2.7	2.6						2.0 2.1 2.2	2.1 2.1 2.0
1630 1800 1930	2.5	2.6	2.5 2.6 2.6	2.6		2.6 2.5 2.6	2.6		2.4 2.5 2.4			2.3	2.2 2.3 2.2	2.4 2.1 2.0
2100 2230	2.5 2.6		2.7			2.4							2.1	2.0
2400 DATE	2.6	2.6 2-11	2.7 2-12	2.6 2-13	2.6 2-14	2.4	2.5 2-16	2.5 2-17	2.4 2-18	2.4	2.4	2.2	2.1	2.1
TIME				,		2-13	2-10	2-17	2-10	2-19	2-20	2-21	2-22	2-23
0130 0300 0430 0600 0730 0900	1.9 2.0 2.0 1.9	2.0	2.0 1.9	1.8 1.9 1.8 1.9	1.9	1.9 1.8 1.7 1.7	1.5 1.6 1.5 1.4 1.3	1.3 1.3 1.4 1.5	1.6 1.8 1.9 1.8	1.7 1.8 1.7 1.5 0.9 1.0	1.4 1.6 1.4 1.2 1.4 1.8	2.0 1.9 1.9 1.3 1.5	1.5 1.5 1.4 1.2 0.9 0.8	2.2 2.0 2.2 2.0 2.0 1.7
1030 1200 1330 1500	1.9 2.0 2.2	2.0 1.9 1.9	1.9	1.8		1.6 1.7 1.6 1.2	1.0 1.3 1.4	1.5 1.4 1.4 1.5	1.8 1.7 1.5	1.3 1.4 1.2 1.2	2.0 1.9 2.0 1.9	1.1 1.3 1.6 1.4	2.0 2.1 2.1 1.3	1.6 2.0 1.9 1.8
1630 1800 1930 2100	2.0	2.0	1.9 1.8 1.9	1.9		1.5 1.6 1.5 1.5	1,4	1.7 1.9 1.9 2.0	1.4 1.5 1.6	1.2 1.0 1.2 1.4	1.8 2.0 2.0	1.2 1.0 0.9 1.0	1.3 1.2 1.3	1.9 2.0 2.0 2.1
2230 2400	2.0	2.0	1.9 1.8	1.9	1.9	1.4 1.5	1.3 1.0	1.3 1.5	1.6	1.5 1.6	1.9 2.0	1.0 1.3	2.1	2.2 2.1

DATE	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9
TIME 0130	2.0	2.0	1.4	1.4	0.9	1.0	1.0	0.9	0.9	1.0	0.3	0.7	0.3	0.2
0300	1,4		1.3	1.5	0.8	1,1	0.5	0.7	1.0		0.5	0.3	0.5	0.2
0430	1.7	2.0	1.8	1.1	1.1	0.8	1.0	0.8					0.3	
0600 0730	1.8	1.9	2.0	0.8		0.7	0.6	1.0		1.0			0.5	
0900	1.9 2.0	1.2 1.8	2.0	1.3	1.1	0.8			1.0	0.8		0 0	0.3	
1030	2.0	1.8	1.4	0.9	1.1	1.0			0.9	0.7		0.3 0.5	0.5 0.2	
1200	2.0	2.0	0.9	0.8		0.8	0.6		1.3	0.7		0.3	0.2	
1330	2.1	1.9	1.4	1.0		0.7	1.0		1.2			0.5		
1500	2.1	2.0	0.9	1.2	1.1	0.5	1.0	1.0	0.9	0.4	0.3			
1630	1.3	2.1	1.4	1.5	0.9	1.0	0.8	0.9	1.1	0.7	0.5			
1800 1930	1.0	2.0	1.2	0.8	1.0	0.7	1.0	0.6	0.9	0.3	0.3	0.3		
2100	1.6 2.0	2.0 1.9	$\frac{1.4}{1.1}$	0.8 1.0	0.9 1.1	0.5	0.8	1.0 0.8	1.2 1.1	0.2		0.6		
2230	2.0	1.2	1.2	0.5	1.2	0.6	0.8	1.0	0.9			0.3		
2400	2.0	1.3	0.8	0.9	1.0	0.9	0.9	0.9	0.8	0.2	0.3	0.3	0.2	0.2
DATE	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23
TIME														
0130 0300	0.2	0.5	0.4	0.9	0.2	0.2	0.2	0.3	0.7	0.2	0.2	0.2	0.4	0.3
0430		0.4		0.9	0.2		0.2	0.2	0.6			0.2	0.3	
0600				0.8	0.5		0.5	0.2	0.5			0.3		
0730				0.4	0.2		0.4	0.3	0.5	0.2		0.5		
0900				0.3		0.2	0.3	0.4		0.3				
1030				0.6		0.3	0.2			0.2	0.2			
1200		0.4		1.0		0.4					0.3			
1330		0.7	0.4								0.2			
1500 1630		0.6	0.5	1.0	0.2	0.4		0.4	0.3					
1800		0.3	1.0	1.0	0.3	0.1	0.2	0.3	0.3			0.3		
1930		0.2	1.1	0.4	0.2		0.4	•••	0.4			0.4		
2100	0.2	0.3	1.0	0.2		0.1	0.3	0.3	0.2			0.5		
2230	0.4	0.4	1.0			0.2	0.2	0.4						
2400	0.5	0.4	0.9	0.2	0.2	0.2	0.1	0.6	0.2	0.2	0.2	0.5	0.3	0.3
DATE	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6
0130	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.8	0.8
0300											0.7			•••
0430					0.4									
0600					0.5				0.6					
0730 0900									0.5					
1030									0.5					
1200									0.6					
1330														
1500				0.3										
1630				0.4			0.5							
1800							0.4	0.5						
1930 2100								0.6						
2230														
2400	0.3	0.3	0.3	0.4	0.5	0.5	0.4	0.6	0.6	0.6	0.7	0.7	0.8	0.8

LAKE MICHIGAN, STATION 39, 60 m continued.

DATE	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20
0130 0300 0430	0.8	0.8 0.8 0.9	0.9	0.8	1.0	0.8	0.9	0.9	0.9	0.9	1.0	1.1 1.1 1.2	1.3	1.5
0600 0730		0.5										1.2	1.3 1.4	
0900 1030 1200	0.8			0.8 0.9	1.0									
1330 1500	0.9	0.9	0.9		0.9					0.9		1.2 1.3		
1630 1800 1930		0.8		0.9	0.8					1.0	1.0			
2100 2230 2400	0.9 0.8 0.8	0.8 0.9 0.9	0.0	0.8	0.8	0.8	0.9	0.9	0.0	1.0		1.0	1.4	
DATE	4-21	4-22	0.8 4-23	4-24	4-25	0.8 4-26	4-27	0.9 4-28	0.9 4-29	1.0 4-30	1.1 5-1	1.3 5-2	1.5 5-3	1.5 5-4
TIME													<u> </u>	<u> </u>
0130 0300 0430	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.8 1.9	1.9	
0600 0730													1.9	
0900 1030 1200														d torn t 0730
1330 1500 1630 1800			1.5 1.6			1.6 1.5 1.5								
1930 2100 2230						1.6	1.6							
2400	1,5	1.5	1.6	1.6			1.7							

LAKE MICHIGAN - STATION 39. Depth 90 m. Start 2 December 1962, 1650 CST; end 19 July 1963, 1000 CST. Instrument serial no. 122, film record 20,188. No temperature correction.

DATE	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15
TIME 0130 0300		4.7 4.8	5.0 4.8	4.3 4.3	4.7 4.8	5.0 5.3	5.1 5.3	5.2 5.1	5.4 5.5	5.9 5.8	5.7	5.8	5.4	5.3
0430		4.8	4.6	4.2		5.2	5.4	5.3	5.4	5.9				
0600 0730		4.9 5.3	4.5 4.5	4.3 4.5	4.8 4.9	4.7 5.3	5.6 5.3	5.6 5.5	5.7 5.8	5.9	5.7 5.8	5.8 5.7		5.3 5.4
0900		4.8	4.6	4.6	4.8	5.0	4.9	5.2	5.9	5.8	3.0	5.6		5.4
1030		4.7			4.9	5.0	4.8	5.4		5.7		5.5		
1200 1330		4.7 4.8	4.6 4.5	4.6 4.5	4.9	5.3 5.4	5.2 5.2	5.3 5.1			5.8	5.4	5.4 5.2	
1500		4.9	4.4	4.3	4.8	4.7	4.8	5.3			5.7			
1630		4.8	4.2	4.2	5.0	5.3	5.3	5.4	5.9	5.7			5.2	· ,
1800 1930	4.9 4.8	4.8 5.0	4.2	4.1	5.2 4.9		5.3 5.1	5.3 5.2	5.8	5.6 5.7	5.7 5.8		5.1 5.2	5.4 5.3
2100	4.7	5.0	4.2	4.1	5.0	5.3	5.0	5.4	5.8					5.3
2230	4.6	5.1	4.3	4.3	- 0	4.8	5.3	5.5	5.9		- 0	- ,		5.2
2400	4.7	5.2	4.3	4.5	5.0	5.3	5.4	5.5	5.9	5.7	5.8	5.4	5.2	5.2
DATE	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
0130	5.3	5.3	5.2	5.2	5.3	5.2	5.2	5.1	5.1	5.0	5.0	5.0	4.8	4.8
0300			5.2	- 0			5.2 5.1							
0430 0600		5.3	5.3	5.2 5.3			5.0		5.1			5.0		
0730	5.3	5.2			5.3		5.0	5.1	5.0			4.9		
0900	5.2			5.3	5.2		4.9 5.0	5.0						
1030 1200	5.2 5.3	5.2		5.2 5.3			3.0			5.0				
1330	5.4	5.1								4.9				
1500														
1630 1800														
1930														
2100 2230	5.4 5.3	5.1	5.3									4.9 4.8		
2400	5.3	5.2	5.2	5.3	5.2	5.2	5.0	5.0	5.0	4.9	5.0	4.8	4.8	4.8
DATE	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
TIME													, ,	4.1
0130 0300	4.8	4.7	4.5	4.5	4.4	4.3	4.2	4.3	4.2	4.3	4.3	4.2	4.2	4.1
0430									4.3	4.3				
0600		4.7					, ,			4.2				
0730 0900		4.6					4.2							
1030														
1200					4.4					4.2	4.3 4.2		4.2	
1330 1500	4,8	4.7		4.5 4.4	4.3					4.1	4.2		4.1	
1630	4.7	4.5		7.									_	
1800								4.3		4.1				
1930 2100						4.3		4.2		4.1				
2230						4.2								, -
2400	4.7	4.5	4.5	4.4	4.3	4.2	4.3	4.2	4.3	4.2	4.2	4.2	4.1	4.1

DATE	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26
0130 0300 0430	4.1	4.1	4.0	4.0	3.9	3.9	3.8	3.8 3.8 3.7	3.8	3.8	3.7	3.2	3.2	3.1 3.2
0600 0730 0900 1030 1200 1330		4.1 4.0		4.0 3.9	3.9 3.8	3.9 3.8		3.7 3.8 3.8 3.7			3.7 3.6		3.2 3.1	3.2 3.1 3.0 3.0
1500 1630 1800 1930 2100					3.8			3,8		3.8 3.7	3.6 3.5 3.3 3.4	3.2 3.1	3.1 3.2	3.1 3.2
2230 2400	4.1	4.0	4.0	3.9	3.9 3.9	3.8	3.8	3.8	3.8	3.7	3.2 3.2	3.2 3.2	3.2	3.2
DATE	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
0130 0300 0430	3.2 3.2 3.1	2.9 3.0	3.1 3.0 3.0	3.0	3.0 3.0	2.9	3.0 2.6 2.8	2.8	3.0 3.0 2.6	2.8 2.9 3.0	2.9 2.9 2.8	2.7 2.8 2.9	2.9 2.8 2.6	3.1 3.1 3.0
0600 0730 0900	3.1 3.0	3.0 3.1 3.1	3.1 3.1 3.0		2.9 2.8 2.9	3.0 3.0 2.9	2.9 3.0	2.8 2.9 2.8	2.6 2.7 2.9	3.0 2.8 2.9	2.7 2.7 2.8	3.0 3.0 2.9	2.4 2.6 2.8	3.0
1030 1200 1330		3.0		3.0	3.0	2.8 2.8 2.9	3.0		2.8 3.0 2.8	2.8 2.7 2.8	2.8	2.7 2.5 2.6	2.7 2.9 2.9	3.1 3.1 3.0
1500 1630 1800 1930	3.0 3.1 3.2 3.1	2.9 2.9 2.8	3.0 3.1 3.0	2.9	3.0 2.9 3.0	2.9 3.0	2.8 2.8 2.9	2.8 2.9	2.8 3.1 3.1 2.7	2.8 2.7 2.7 2.8	2.9 3.0 2.9 2.8	2.5 2.7 2.9	2.8 2.8 2.9 3.1	2.8 2.7 3.0 3.0
2100 2230 2400	3.1	2.8 3.0 3.1	3.0 2.9 2.9	2.8 2.9 2.9	3.0 2.9	3.0 2.9 3.0	2.9 2.8 2.8	2.9 2.8 2.9	2.7	2.8 2.9 2.9	2.8 2.7 2.7	2.9 2.8 2.8	3.0 3.1 3.1	3.1 3.0 3.0
DATE	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23
TIME 0130 0300 0430 0600 0730 0900	2.8 2.9 2.9 3.0 2.9	2.8 2.8 2.9 2.7 2.5	2.3 2.4 2.5 2.4 2.5 2.6	2.6 2.5 2.6 2.6 2.8	2.8	2.8 2.7 3.0 3.0 2.8	2.8 2.8 2.9 3.0	2.8 2.6 2.7 2.7 2.6	2.4	2.4 2.5 2.6 2.7 2.7 2.5	2.5 2.5 2.6 2.6 2.5	2.4 2.3 2.4 2.5 2.6	2.7	2.7
1030 1200 1330 1500 1630 1800 1930	2.9 2.8	2.6 2.8 2.6 2.7 2.9 2.4 2.6	2.5 2.3 2.4 2.6 2.7 2.6 2.7	2.8 2.9 2.9 2.8 2.8	2.8 2.7 2.7 2.8 2.8 2.9 3.0	2.3 2.7 2.9 2.9 2.8 3.0 2.8	2.9 2.9 2.4 2.6 2.8 2.8	2.6 2.5 2.5 2.4 2.3 2.4	2.4 2.5 2.6 2.6 2.5	2.5 2.6 2.6 2.7	2.5 2.6 2.5	2.6 2.7		2.7 2.6
2100 2230 2400	2.9 2.8 2.7	2.6 2.3 2.4	2.8 2.9 2.8	2.6 2.8 2.8	3.0 2.8	3.0 2.8 2.9	2.9 2.9 2.8	2.4	2.5	2.7 2.6 2.6	2.5	2.7	2.7	2.6

LAKE MICHIGAN, STATION 39, 90 m continued.

DATE	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9
TIME 0130	2.6	2.6	2.6	2.6	2.6	2.5	2.6	2.6	2.6	2.6	2.6	2.5	2.7	2.7
0300 0430				2.6 2.5	2.6 2.5					2.6		2.5		
0600 0730			2.6					2.6			2.6			
0900				2.5							2.6			
1030 1200	2.6		2.7	2.6				2.5		2.7				
1330 1500	2.5		2.6 2.5			2.5			2.6	2.6				
1630						2.0			2.,	2.,				
1800 1930	2.5		2.5						2.7		2.6 2.5			2.7
2100 2230	2.6			2.5					2.6	2.7	2.5			2.5
2400	2.6	2.6	2.6	2.6	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.5 2.6
DATE	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23
0130	2.5	2.6	2.6	2.6	2.7	2.7	2.8	2.5	2.6	2.7	2.8	2.7	2.7	2.7
0300 0430	2.5	2.5			2.7	2.7	2.7		2.5	2.7		2.7	2.7 2.6	2.7
0600	2.6	2.5			2.6	2.9	2.4			2.6		2.6	2.8	2.6
0730		2.6		2.6	2.5	2.9	2.5			2.6	2.8	2.5		2.8
0900 1030	2.6	2.5		2.7	2.5	2.8			2.5	2.7	2.7	2.4		2.8
1200	2.5	2.5		2.6	2.6	2.7			2.6			2.7	2.8	2.4
1330	2.4	2.4		2.5	2.6	2.6			2.7	2.7	2.7	2.8	2.6	-•
1500	2.4	2.4		2.4	2.7			2.5	2.5	2.8	2.6	2.9	2.4	2.4
1630	2.5	2.5		2.4	2.8			2.6				3.0	2.5	2.5
1800 1930	2.7	2.6	2.6 2.7	2.5 2.6	2.8	2.6				2.8	2.6	2.8 2.7	2.6	2.6
2100	2.0	2.6	2.1	2.7	2.7	2.8			2.5	2.7	2.7	2.5	2.7	2.5 2.6
2230		2.0		,	,	2.0			2.7	2.7	2.,	1.8		2.0
2400	2.6	2.6	2.7	2.7	2.7	2.8	2.5	2.6	.27	2.8	2.7	2.0	2.7	2.6
DATE	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6
0130	2.6	2.3	2.2	1.9	2.5	2.2	2.5	2.0	2.0	2.1	2.0	2.7	2.4	1.4
0300		2.4	2.0	1.9		2.3	2.5	2.0	2.0	2.2	1.4	2.5	2.2	1.4
0430		2.4	2.0	2.3	2.5	2.3	1.9	2.4	2.3	1.9	1.4	2.3	2.1	2.1
0600		2.6	1.6	2.4	2.0	2.5	2.0		2.1	1.8	2.0	2.1	2.3	2.6
0730 0900	2.6	2.6 2.5	1.8 2.3	2.2	1.2		2.1	2.4	1.8	2.1	2.4	2.0	1.9 1.6	2.8
1030	2.7	2.3	2.5	2.5	2.2		2.1	2.1	2.4	1.9	2.2	1.7	1.4	2.0
1200	2.4	2.1	2.7	2.5	2.4	2.5	2.5	2.0	2.3	1.4	2.1	2.3	1.3	1.5
1330	2.4	1.2	2.7	2.4	2.5	2.0		2.0	2.1	1.9	1.9	1.5	2.1	1.5
1500	2.5	1.1	2.2	2.2		1.9		1.9	2.2	2.2	2.1	1.6	2.3	2.1
1630 1800	2.6	1.8	2.5 2.5	1.9 1.9		2.2	2.5	2.1	1.9	2.3	2.2 1.9	1.7 1.7	2.5 2.8	2.1
1930		2.3	2.6	2.2		2.5	2.1	2.6		2.1	2.3	1.6	2.4	2.3
2100	2.6	2.5	2.3	2.1	2.5		2.0	2.5		2.0	2.6	1.7	1.6	2.3
2230	2.0	2.5	2,5	2.5	1.9			2.1	1.9	2.4	2.7	1.8		1.5
2400	2,3	2.3	1.9	2.5	2.2	2.5	2.0	2.1	2.1	2.3	2.7	1.9	1.6	2.0

LAKE MICHIGAN, STATION 39, 90 m continued.

TIME	DATE	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20
0300															
0430 1.9 1.9 1.5 2.1 1.9 1.9 1.5 2.2 1 1.9 1.9 1.9 2.2 2.0 6000 1.6 2.3 1.5 1.9 2.2 2.0 1.5 2.3 1.6 1.6 1.7 2.1 2.0 2.0 6000 1.6 2.3 1.5 1.9 2.2 2.0 1.5 2.3 1.6 1.6 1.7 2.1 2.0 1.8 1.9 6000 2.0 1.8 2.3 1.7 1.9 2.1 2.0 1.6 2.1 1.9 1.7 1.8 2.0 1.8 1.9 6000 2.0 1.8 2.3 1.7 1.9 2.1 2.0 1.6 2.1 1.9 1.7 1.8 1.9 1.9 2.0 1.3 1.9 1.9 1.0 1.8 1.9 1.9 2.0 1.3 1.6 2.1 1.9 1.7 1.8 1.9 1.9 2.0 1.8 1.9 1.9 2.0 1.3 1.6 2.1 1.9 1.9 1.6 1.8 1.9 1.9 2.0 1.7 1.8 1.6 1.9 1.8 1.8 2.1 1.9 1.9 1.0 1.8 1.8 1.8 2.1 1.9 1.9 1.0 1.8 1.8 1.9 1.9 2.0 1.7 1.8 1.0 1.9 1.9 1.0 1.8 1.8 1.8 2.1 1.9 1.9 1.0 1.8 1.8 1.8 2.1 1.9 1.9 1.0 1.8 1.8 1.9 1.9 1.9 1.0 1.9 1.0 1.0 1.7 1.5 1.8 1.0 1.9 1.8 1.8 1.8 2.1 1.9 1.9 1.0 1.9 1.0 1.9 1.0 1.9 1.0 1.8 1.9 1.9 1.9 1.0 1.0 1.9 1.0 1.9 1.0 1.9 1.0 1.9 1.0 1.9 1.0 1.9 1.0 1.9 1.0 1.9 1.0 1.9 1.0 1.9 1.0 1.9 1.0 1.9 1.0 1.9 1.0 1.9 1.0 1.9 1.0 1.0 1.9 1.0 1.9 1.0 1.0 1.9 1.0 1.9 1.0 1.0 1.9 1.0 1.0 1.9 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0										1.6	1.6			1.8	
0600															
0730															
0900															
1030															
1200 1.8 1.4 2.2 1.9 1.9 1.6 2.3 1.6 1.9 2.0 1.7 2.2 1.8 2.6 1.5 1.8 2.6 1.9 2.2 1.7 2.2 2.4 2.2 1.4 2.2 1.7 1.8 1.6 1.9 1.8 2.6 1.5 1.5 1.9 2.0 1.7 2.7 1.8 1.8 1.6 1.9 2.1 1.8 2.6 1.9 1.9 1.9 1.9 1.4 2.2 1.6 1.9 2.1 1.8 2.6 1.9 2.0 1.7 2.7 1.8 1.8 1.7 1.7 2.7 1.8 1.8 1.7 1.7 2.7 1.8 1.8 1.7 1.7 2.7 1.8 1.8 1.7 1.7 2.7 1.8 1.8 1.7 1.7 2.7 1.8 1.8 1.7 1.7 2.7 1.8 1.8 1.7 1.7 2.7 1.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9															
1330 2,2 1,7 2,2 2,4 2,2 1,4 2,2 1,7 1,8 1,6 1,9 1,8 2,6 1,7 1,8 1,6 1,9 1,7 1,7 2,0 1,8 2,0 1,8 1,7 1,7 1,7 1,7 1,7 1,7 1,7 2,0 1,8 1,9 1,9 1,4 2,2 1,6 1,9 1,7 1,5 2,6 1,8 1,9 1,9 1,7 1,5 2,2 1,6 1,9 1,7 1,5 2,6 1,9 1,7 1,5 2,6 1,9 1,7 1,5 2,6 1,9 1,7 1,5 2,6 1,2 1,1 1,6 1,9 1,7 1,5 2,5 1,2 1,2 2,2 1,1 1,8 2,0 1,7 1,5 2,0 1,7 1,5 2,0 2,2 1,1 1,6 1,7 1,9 2,0 2,2 1,9 2,0 2,0 2,1 1,9 1,9 <td></td> <td>1.6</td> <td></td> <td></td> <td>1.8</td> <td></td>											1.6			1.8	
1500													1.7		
1630 1,8 2.0 1,8 1.9 1,9 1,4 2,2 1,6 1,9 2,1 1,8 2,6 1800 1,7 2,1 1,6 1,9 1,7 1,5 2,2 2,3 1,5 1,9 2,0 1,9 2,6 1930 2,0 1,9 1,5 2,3 1,5 2,1 1,6 1,9 1,7 2,5 2100 1,8 1,9 1,8 2,3 1,8 2,4 1,5 1,9 1,7 1,9 2,0 2,5 2200 1,7 1,8 2,2 2,1 2,0 2,3 1,6 2,3 1,8 1,8 2,0 2,2 2,1 1,8 2,3 1,9 2,0 2,2 2,1 2,0 2,2 1,1 1,8 2,0 2,2 1,9 1,9 1,5 1,1 1,8 2,0 1,9 2,0 1,9 2,0 1,9 2,0 1,9 2,0 1,9 2,0 1,9 2,0 1,9 2,0 1,9 2,0 1,9 2,0 2,0					2.4			2.2							
1800														1.7	
1930 2,0 1,9 1,5 2,3 1,8 2,4 1,6 2,1 1,8 2,0 1,7 2,5															
2100									2.3	1.5					
2230 1.7 1.8 2.2 2.1 2.0 2.3 1.6 2.3 2.1 1.7 1.8 2.3 1.9 2400 1.6 1.8 2.3 1.8 1.8 2.0 2.0 1.9 1.5 2.1 1.7 1.8 2.3 1.9 2400 1.6 1.8 2.3 1.8 1.8 2.0 2.0 1.9 1.5 2.1 1.7 1.8 2.5 1.9 2400 1.6 1.8 2.3 1.8 1.8 2.0 2.0 1.9 1.5 2.1 1.7 1.8 2.5 1.9 DATE 4-21 4-22 4-23 4-24 4-25 4-26 4-27 4-28 4-29 4-30 5-1 5-2 5-3 5-4 TIME 0130 2.0 2.4 2.0 2.2 2.1 2.0 2.1 0430 2.2 2.3 1.9 2.6 2.0 2.1 2.0 2.1 0430 2.3 2.1 2.4 2.0 2.2 2.0 2.1 0600 2.3 2.0 1.9 2.0 2.2 2.0 0600 2.3 2.0 1.9 2.0 2.2 0900 2.4 2.0 1.9 2.0 2.1 1200 2.1 2.0 2.1 2.0 2.1 1200 2.1 2.0 2.1 2.0 2.1 1200 2.0 2.1 2.0 2.1 1330 2.1 2.0 2.1 2.0 2.1 1630 2.0 2.1 2.0 1.9 2.2 2.1 1630 2.0 2.1 2.0 2.1 2.0 2.1 1630 2.0 2.1 2.0 2.1 2.0 2.1 1630 2.0 2.1 2.0 2.1 2.0 2.1 1630 2.0 2.1 2.0 2.1 2.0 2.1 1630 2.0 2.1 2.0 2.1 2.0 2.1 1630 2.0 2.1 2.0 2.1 2.0 2.1 1630 2.0 2.1 2.0 2.1 2.0 2.1 1630 2.0 2.1 2.0 2.1 2.0 2.1 1630 2.0 2.1 2.0 2.1 2.0 2.1 1630 2.0 2.2 2.0 2.1 2.0 2.1 1630 2.0 2.1 2.0 2.1 2.0 2.1 1630 2.0 2.3 1.9 1.9 2.2 2.0 1630 2.0 2.3 1.9 1.9 2.2 2.0 1630 2.0 2.3 2.0 2.1 2.0 2.1 1630 2.0 2.3 2.0 2.1 2.0 2.1 1630 2.0 2.3 2.0 2.1 2.0 2.1 1630 2.0 2.3 2.0 2.1 2.0 2.1 1630 2.0 2.3 2.0 2.1 2.0 2.1 1630 2.0 2.3 2.0 2.1 2.0 2.1 1630 2.0 2.3 2.0 2.1 2.0 2.1 1630 2.0 2.3 2.0 2.1 2.0 2.1 1630 2.0 2.3 2.0 2.1 2.0 2.1 1630 2.0 2.3 2.0 2.1 2.0 2.1 1630 2.0 2.3 2.0 2.1 2.0 2.1 2.0 2.1 1630 2.2 2.0 2.0 2.1 2.0 2.1 1630 2.2 2.0 2.0 2.1 2.0 2.1 1630 2.2 2.0 2.0 2.1 2.0 2.1 1630 2.2 2.0 2.0 2.1 2.0 2.1 1630 2.2 2.0 2.0 2.1 2.0 2.1 1630 2.2 2.0 2.0 2.1 2.0 2.1 1630 2.2 2.0 2.0 2.1 2.0 2.1 1630 2.2 2.0 2.0 2.1 2.0 2.1 2.0 2.1 1630 2.2 2.0 2.0 2.1 2.0 2.1 2.0 2.0 2.1 1630 2.2 2.0 2.0 2.1 2.0 2.															
2400 1.6 1.8 2.3 1.8 1.8 2.0 2.0 1.9 1.5 2.1 1.7 1.8 2.5 1.9 DATE 4-21 4-22 4-23 4-24 4-25 4-26 4-27 4-28 4-29 4-30 5-1 5-2 5-3 5-4												1.7			
DATE 4-21 4-22 4-23 4-24 4-25 4-26 4-27 4-28 4-29 4-30 5-1 5-2 5-3 5-4															
TIME 0130 2.0 2.4 2.0 2.2 2.1 2.0 2.1 0300 2.2 2.3 1.9 2.6 2.0 2.1 2.1 0430 2.3 2.1 2.4 2.0 2.2 2.0 0600 2.3 2.0 1.9 2.0 2.2 0730 2.4 2.0 1.9 2.0 2.0 0900 2.3 2.0 2.1 2.0 2.1 1200 2.1 2.0 2.1 2.0 2.1 1200 2.1 2.0 2.1 2.0 1330 2.1 2.0 2.1 2.0 1500 2.0 2.1 2.0 2.1 2.0 1630 2.0 2.1 2.0 1.9 2.2 2.1 1630 2.0 2.1 2.0 1.9 2.2 2.1 1630 2.0 2.1 2.0 1.9 2.2 2.1 1630 2.0 2.1 2.0 1.9 2.2 2.1 1630 2.0 2.1 2.0 1.9 2.2 2.1 1630 2.0 2.1 2.0 1.9 2.2 2.1 1630 2.0 2.1 2.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2400	1.6	1.8	2.3	1.8	1.8	2.0	2.0	1.9	1.5	2.1	1.7	1.8	2.5	1.9
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	DATE	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4
0300 2.2 2.3 1.9 2.6 2.0 2.1 2.1 0430 2.3 2.1 2.4 2.2 2.0 0600 2.3 2.0 1.9 2.0 2.2 0730 2.4 2.0 1.9 2.0 2.0 0900 2.3 2.0 2.1 2.0 1030 2.2 1.9 2.2 2.1 1200 2.1 2.0 2.1 2.2 1330 2.1 2.0 2.1 2.3 1500 2.0 2.1 2.0 1.9 2.2 2.1 1630 2.2 2.0 2.0 2.1 1800 2.0 2.1 1.9 2.2 2.1 1830 2.1 2.0 2.1 2.0 1.9 2.2 1830 2.1 2.0 2.1 2.0 1.9 2.2 1830 2.1 2.0 2.1 2.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0															
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		2.0	2 /	2 0											
0600 2.3 2.0 1.9 2.0 2.2 2.0 2.0 0900 2.3 2.0 2.1 2.0 2.1 2.1 2.0 2.1 2.1 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0															
0730 2.4 2.0 1.9 2.0 2.0 2.0 2.0 1.9 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.1 2.0 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.0 2.0 2.1 2.0 2.0 2.0 2.1 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0		2.2	2.3		2.6		2.1	2.1							
0900 2.3 2.0 2.1 2.0 2.1 1030 2.2 1.9 2.2 2.1 2.2 1200 2.1 2.0 2.1 2.2 1330 2.1 2.0 2.1 2.3 1500 2.0 2.1 2.0 2.1 1630 2.2 2.0 2.1 2.0 1800 2.0 2.3 1.9 1.9 2.0 1930 2.1 2.1 1.9 2.1 2100 2.2 2.0 2.1 2.1 2200 2.3 1.9 1.9 2.1 2230 2.3 1.9 1.9 2.1	0430	2.2	2.3	1.9	2.6		2.1	2.1							
1030 2.2 1.9 2.2 2.1 1200 2.1 2.0 2.1 2.2 1330 2.1 2.0 2.1 2.3 1500 2.0 2.1 2.0 1.9 2.2 2.1 1630 2.2 2.0 2.1 2.0 2.0 1930 2.1 2.1 1.9 2.0 1930 2.1 2.1 1.9 2.0 1930 2.2 2.0 2.1 2.0 Record is torn off at 1730	0430 0600	2.2 2.3 2.3	2.3	1.9 1.9	2.6 2.4 2.0		2.1 2.2 2.2	2.1							
1200 2.1 2.0 2.1 2.2 2.1 2.3 1.9 2.2 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.2 2.0 2.1 2.0 2.2 2.0 2.1 2.0 2.2 2.0 2.1 2.0 2.2 2.0 2.1 2.0 2.2 2.0 2.1 2.0 2.2 2.0 2.1 2.0 2.2 2.0 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1	0430 0600 0730	2.2 2.3 2.3 2.4	2.3 2.1 2.0	1.9 1.9 2.0	2.6 2.4 2.0	2.0	2.1 2.2 2.2	2.1 2.0 2.0							
1330 2.1 2.0 2.1 2.3 1500 2.0 2.1 2.0 1.9 2.2 2.1 1630 2.0 2.3 1.9 1.9 2.0 2.0 1800 2.1 2.1 1.9 2.0 1930 2.1 2.1 1.9 2.1 2.0 2.0 1930 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1	0430 0600 0730 0900	2.2 2.3 2.3 2.4 2.3	2.3 2.1 2.0	1.9 1.9 2.0 2.1	2.6 2.4 2.0	2.0	2.1 2.2 2.2	2.1 2.0 2.0							
1500 2.0 2.1 2.0 1.9 2.2 2.1 2.0 2.1 2.0 2.1 2.0 1800 2.0 2.3 1.9 1.9 2.0 2.1 2.0 Record is torn 2100 2.2 2.0 2.1 2.1 off at 1730 2.2 2.0 2.3 1.9 2.1 off at 1730	0430 0600 0730 0900 1030	2.2 2.3 2.3 2.4 2.3 2.2	2.3 2.1 2.0 2.0 1.9	1.9 2.0 2.1 2.2	2.6 2.4 2.0	2.0 2.0 2.1	2.1 2.2 2.2	2.1 2.0 2.0							
1630 2.0 2.1 2.0 2.1 2.0 2.0 2.1 2.0 2.0 2.1 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	0430 0600 0730 0900 1030 1200	2.2 2.3 2.3 2.4 2.3 2.2 2.1	2.3 2.1 2.0 2.0 1.9 2.0	1.9 2.0 2.1 2.2 2.1	2.6 2.4 2.0	2.0 2.1 2.2	2.1 2.2 2.2	2.1 2.0 2.0							
1800 2.0 2.3 1.9 1.9 2.0 Record is torn 2100 2.2 2.0 2.1 2.1 off at 1730	0430 0600 0730 0900 1030 1200 1330	2.2 2.3 2.3 2.4 2.3 2.2 2.1 2.1	2.3 2.1 2.0 2.0 1.9 2.0 2.0	1.9 2.0 2.1 2.2 2.1 2.1	2.6 2.4 2.0 1.9	2.0 2.1 2.2 2.3	2.1 2.2 2.2	2.1 2.0 2.0 2.1							
1930 2.1 2.1 1.9 2.1 Record is torn 2100 2.2 2.0 2.1 off at 1730 2230 2.3 1.9	0430 0600 0730 0900 1030 1200 1330 1500	2.2 2.3 2.3 2.4 2.3 2.2 2.1 2.1	2.3 2.1 2.0 2.0 1.9 2.0 2.0 2.1	1.9 2.0 2.1 2.2 2.1 2.1 2.0	2.6 2.4 2.0 1.9	2.0 2.1 2.2 2.3 2.2	2.1 2.2 2.2	2.1 2.0 2.0 2.1							
1930 2.1 2.1 1.9 2.1 off at 1730 2100 2.2 2.0 2.1 2.1 2.1 2.2 2.0 2.1	0430 0600 0730 0900 1030 1200 1330 1500 1630	2.2 2.3 2.3 2.4 2.3 2.2 2.1 2.1 2.0	2.3 2.1 2.0 2.0 1.9 2.0 2.0 2.1 2.2	1.9 2.0 2.1 2.2 2.1 2.1 2.0 2.0	2.6 2.4 2.0 1.9	2.0 2.1 2.2 2.3 2.2	2.1 2.2 2.2 2.0	2.1 2.0 2.0 2.1							
2230 2.3 1.9	0430 0600 0730 0900 1030 1200 1330 1500 1630 1800	2.2 2.3 2.3 2.4 2.3 2.2 2.1 2.1 2.0	2.3 2.1 2.0 2.0 1.9 2.0 2.0 2.1 2.2 2.3	1.9 2.0 2.1 2.2 2.1 2.1 2.0 2.0	2.6 2.4 2.0 1.9	2.0 2.1 2.2 2.3 2.2	2.1 2.2 2.2 2.0	2.1 2.0 2.0 2.1	d is t	orn					
	0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930	2.2 2.3 2.3 2.4 2.3 2.2 2.1 2.1 2.0	2.3 2.1 2.0 2.0 1.9 2.0 2.0 2.1 2.2 2.3 2.1	1.9 2.0 2.1 2.2 2.1 2.1 2.0 2.0	2.6 2.4 2.0 1.9 1.9 2.1 1.9 1.9	2.0 2.1 2.2 2.3 2.2	2.1 2.2 2.2 2.0	2.1 2.0 2.0 2.1 2.1 2.0 Recor							
2400 2.4 1.9 1.9 2.1 2.0 2.1	0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930 2100	2.2 2.3 2.4 2.3 2.2 2.1 2.1 2.0	2.3 2.1 2.0 2.0 1.9 2.0 2.1 2.2 2.3 2.1 2.0	1.9 2.0 2.1 2.2 2.1 2.1 2.0 2.0	2.6 2.4 2.0 1.9 1.9 2.1 1.9 1.9	2.0 2.1 2.2 2.3 2.2	2.1 2.2 2.2 2.0	2.1 2.0 2.0 2.1 2.1 2.0 Recor							
	0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930 2100 2230	2.2 2.3 2.3 2.4 2.3 2.2 2.1 2.0 2.0 2.1 2.2 2.3	2.3 2.1 2.0 2.0 1.9 2.0 2.0 2.1 2.2 2.3 2.1 2.0 1.9	1.9 2.0 2.1 2.2 2.1 2.1 2.0 2.0	2.6 2.4 2.0 1.9 1.9 2.1 1.9 2.1	2.0 2.1 2.2 2.3 2.2 2.0	2.1 2.2 2.2 2.0 2.0	2.1 2.0 2.0 2.1 2.1 2.0 Recor							

LAKE MICHIGAN - STATION 39. Depth 180 m. Start 2 December 1962, 1650 CST; end 19 July 1963, 1000 CST. Instrument serial no. 129, film record 20,189. No temperature correction.

DATE	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15
TIME 0130		3.8	3.7	3.7	3.6	3.3	3.2	3.2	3.2	3.2	3.2	3.2	3.2	2.0
0300		3.8	3.7	3.7	3.0	3.3	3.4	3.2	3.2	3.2	3.2	3.2	3.2	3.2
0430		3.7												
0600						3.3					3.2			
0730					3.6	3.2					3.1			
0900 1030					3.5 3.4				3.2 3.1		3.2			
1200					3.3				3.1					
1330					3.2									
1500					3.3				3.1					
1630	0.0								3.2					
1800 1930	3.9 3.8			3.7										
2100	3.0			3.6										3.2
2230	3.8													3.3
2400	3.7	3.7	3.7	3.6	3.3	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.3
DATE	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
TIME 0130	3.3	3.2	3.2	3.2	3.2	3.2	3.2	3.3	4.0	3.9	3.6	3.7	3.6	3.3
0300	3.2	3,2	3.2	3.2	3.2	3.2	3.2	3.3	4.0	3.9	3.0	3.7	3.0	3.3
0430														3.2
0600			3.2									3.7	3.6	
0730	0.0		3.3	3.2		3.2		2.2	4.0		2.6	3.6	3.5	3.2
0900 1030	3.2		3.4	3.1	3.2	3.1		3.3 3.4	3.9	3.9	3.6 3.7			3.1
1200	3.2	3.2	3.4	3.2	3.1			3.6		3.8	3.7			
1330		3.3	3.3		3.2			3.8		3.7				3.1
1500		3.2	3.3			3.1		3.9		3.6				3.2
1630			3.2			3.2	3.2	3.9					2 5	
1800 1930							3.3	4.0					3.5	
2100													3.3	
2230									3.9					
2400	3.2	3.2	3.2	3.2	3.2	3.2	3.3	4.0	3.8	3.6	3.7	3.6	3.3	3.2
DATE	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
TIME 0130	3.2	3.2	3,3	3.4	3.4	3.3	3.3	3.3	3.3	3.4	3.4	3.4	3.4	3.4
0300	3.2	3.2	3.3	3.4	3.4	3.3	3.3	3.3	3.3	3.4	3.4	J. 4	3.4	3.4
0430														
0600					3.4							3.4		
0730			3.3		3.3	3.3						3.3		3.4
0900 1030	3.2		3.4			3.2								3.4
1200	3,1	3.2				3.2								•••
1330		3.3				3.3								
1500														
1630 1800	3,1				3.3									
1930	3.2				3.4				3.3			3.3		
2100									3.4			3.4		
2230									٠,					
2400	3.2	3.3	3.4	3.4	3.4	3.3	3.3	3.3	3.4	3.4	3.4	3.4	3.4	3.3

DATE	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26
0130	3.3	3.4	3.4	3.4	3.3	3.4	3.3	3.3	3.3	3.2	3.2	3.1	3.1	3.1
0300 0430 0600 0730 0900 1030 1200 1330		3.4 3.3	3.4 3.3		3.3 3.4	3.4 3.3 3.3 3.2	3.3 3.2	3.3 3.2	3.3 3.2 3.2 3.1 3.2	3.2 3.1 3.1	3.2 3.1	3.0 3.1	3.1 3.0 3.1	3.0 3.1
1500 1630 1800			3.3 3.4	3.4		3.2 3.3	3.2 3.3			3.2		3.1 3.0		
1930 2100 2230	3.3 3.4			3.3				3.2 3.3				3.0 3.1		3.1
2400	3.4	3.3	3.4	3.3	3.4	3.3	3.3	3.3	3.2	3.2	3.1	3.1	3.1	3.0 3.0
DATE	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
0130 0300 0430	3.0	3.0	3.0	3.0	3.0	3.0 3.0 2.9	3.0	3.1 3.0	3.0	3.0	3.0	3.0	3.0	3.0
0600 0730 0900				3.0 2.9 2.9	3.0 2.9	3.0								
1030 1200 1330 1500 1630 1800				3.0	2.9									
1930 2100 2230							3.0 3.1	3.0 3.1						
2400	3.0	3.0	3.0	3.0	3.0	3.0	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0
DATE	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23
0130 0300 0430	3.0	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.9	2.9	3.0	2.9	2.9	3.0
0600 0730				2.9							3.0 2.9			3.0 2.9
0900 1030 1200			3.0 2.9	2.9 3.0										
1330 1500 1630 1800 1930 2100			2.9			3.0 2.9				2.9		2.9 3.0	2.9	2.9 3.0 2.9
2230 2400	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.9	2.9	3.0	2.9	3.0	3.0 3.0	2.9

DATE	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9
TIME														
0130	2.9	2.9	2.9	2.9	3.0	2.9	3.0	3.0	2.9	2.9	2.9	2.9	2.9	2.9
0300							3.0	3.0						
0430					3.0		2.9	2.9						
0600					2.9									
0730														
0900														
1030														
1200											2.9			
1330											3.0			
1500							2.9				3.0			
1630							3.0				2.9			
1800					2.9				2.9					
1930				2.9	3.0				3.0					
2100				3.0		2.9			3.0					
2230						3.0			2.9					
2400	2.9	2.9	2.9	3.0	3.0	3.0	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9
DATE	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23
TIME														
0130	2.9	2.9	2.9	2.9	3.0	3.0	3.0	2.9	2.9	2.9	2.9	3.0	3.0	3.0
0300				0.0		3.0	2.0					3.0		3.0
0430 0600				2.9		2.9	3.0					2.9		2.9
				3.0	3.0		2.9						3.0	
07 30 0900				2.9	2.9								2.9	
1030														
1200														
1330														
1500	2.9							2.9						
1630	3.0							3.0						
1800	2.9			2.9				2.9		2.9			2.9	
1930	2.,			3.0				2.7		3.0			3.0	
2100				3.0		2.9				3.0	2.9	2.9	3.0	
2230					2.9	3.0				3.0	3.0	3.0	3.0	
2400	2.9	2.9	2.9	3.0	3.0	2.9	2.9	2.9	2.9	2.9	3.0	3.0	3.0	2.9
DATE	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	
TIME	3-24	3-23	3-20	3-27	3-20	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-3	4-6
0130	3.0	2.9	2.9	3.0	2.9	2.9	2.9	2.9	2.9	3.0	3.0	3.0	2.9	2.9
0300											3.0	3.0		2.9
0430											2.9	2.9		3.0
0600				3.0										
0730	3.0			2,9										
0900	2.9													
1030		2.9												
1200		3.0								3.0				
1330										2.9				
1500											2.9			
1.6.30	2.9										3.0	2.9	2.9	
1800	3.0									2.9		3.0	3.0	
1930										3.0		3.0	3.0	
2100	3.0	3.0	2.9									2.9	2.9	
2230	2.9	2.9	3.0											
2400	2.9	2.9	3.0	2.9	2.9	2.9	2.9	2.9	2.9	3.0	3.0	2.9	2.9	3.0

LAKE MICHIGAN, STATION 39, 180 m continued.

DATE	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20
TIME 0130 0300 0430 0600 0730 0900	3.0 2.9 3.0	3.0	3.0 2.9	2.9	3.0 2.9	3.0 3.0 2.9	2.9 2.9 3.0	3.0	3.0 3.0 2.9 2.9 3.0	3.0	3.0 2.9	3.0 3.0 2.9	3.0 3.0 2.9 3.0	3.0
1030 1200 1330	3.0			3.0		2.9 3.0		2.9 2.9 3.0		2.9 2.9 3.0				
1500 1630 1800 1930 2100			2.9 3.0		2.9 3.0						2.9 3.0	2.9 3.0		
2230 2400	3.0	3.0	3.0 2.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
DATE	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4
TIME 0130 0300 0430	3.0	2.9	3.0	3.0	3.0	3.1 3.0	3.1 3.1 3.0	3.0	3.0	3.0	3.0	3.0		
0600 0730 0900	3.0 2.9 2.9						3.0							
1030 1200 1330 1500	3.0	2.9		3.0 2.8 2.9 2.9		3.0 3.1 3.0								
1630 1800 1930 2100 2230	3.0 2.9 3.0	3.0 2.9 3.0		3.0	3.0 3.1									
2400	3.0	3.0	3.0	3.0	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0 Recor torn.		

LAKE MICHIGAN - STATION 39. Depth 210 m. Start 2 December 1962, 1650 CST; end 19 July 1963, 1000 CST. Instrument serial no. 109, film record 20,190. No temperature correction.

DATE	10.0	10.0	10 /	10.5	10 (10.7	10.0	10.0	10.10					
DATE	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15
0130		3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.1	3.1	3.1	3.1
0300		J. 1	3.1	J. 1	3.1	3.0	3.1	J.1	3.1	3.0	3.1	2.1	3.1	3.1
0430						3.0								
0600						3.1				3.0		3.1		
0730										3.1		3.0		
0900														
1030								3.1						
1200							3.1	3.0						
1330							3.0							
1500												3.0		
1630							3.0	3.0				3.1		
1800	3.2						3.1	3.1						
1930	3.1													
2100									3.1					
2230									3.0					
2400	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.1	3.1	3.1	3.1	3.1
DATE	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
TIME 0130	3.1	3.1	3.2	3.1	3.1	3.1	3.1	4.0	3.9	3.2	3.2	3.2	3.2	3.2
0300	311	3.1	3.2	3.1	J• 1	3.1	3.1	7.0	3.7	3.2	3.2	J. Z	3.2	3.2
0430			3.2				3.1				3.2		3.2	
0600			3.1				3.3				3.1		3.1	3.2
0730							3.5	4.0	3.9					3.3
0900							3.6	3.8	3.6					3.2
1030		3.1		3.1			3.8		3.4					
1200		3.2		3.2			3.9	3.8	3.2					
1330		3.4			3.1			3.9						
1500		3.5		3.2	3.2						3.1			
1630		2 5		3.1	2 0						3.2		3.1	
1800 1930		3.5 3.4			3.2								3.2	2.0
2100		3.3			3.1									3.2 3.3
2230		3.2												3,3
2400	3.1	3.2	3.1	3.1	3.1	3.1	3.9	3.9	3.2	3.2	3.2	3.2	3.2	3.3
DATE	12-30		1-1	1-2	1-3		1-5	1-6	1-7	1-8	1-9			
TIME	12-30	12-31	1-1	1-2	1-3	1-4	1-3	1-0	1-/	1-0	1-9	1-10	1-11	1-12
0130	3.3	3.3	3.5	3.4	3.3	3.3	3.3	3.2	3.3	3.4	3.4	3.4	3.4	3.4
0300														
0430				3,4						3.4				
0600		3.3		3.3						3.3				
0730 0900		3.4					3.3							
1030							3.4							
1200							3.4	3.2		3.3				
1330							3.3	3.3	3.3	3.4				
1500		3.4							3.4					
1630		3.5												
1800			3.5											
1930			3.4											
2100														3.4
2230	2 2	2 5	2 4	2 2	2 2	2 2	2 2	2 2	2 /	2 /	2 /	2 /	2 /	3.3
2400	3.3	3.5	3.4	3.3	3.3	3.3	3.3	3.3	3.4	3.4	3.4	3.4	3.4	3.3

DATE	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26
0130	3.3	3.3	3.4	3.3	3.2	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0
0300 0430 0600 0730 0900 1030 1200 1330 1500			3.4 3.3	3.3 3.2	3.2 3.1									
1630 1800 1930 2100 2230		3.3 3.4		3.2 3.3 3.3 3.2			3.1							3.0 2.9
2400	3.3	3.4	3.3	3.2	3.1	3.1	3.0 3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.9
DATE TIME	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
0130 0300 0430	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9 3.0	2.9
0600 0730 0900 1030									2.9 3.0			2.9 3.0		2.9 3.0
1200 1330 1500 1630					2.9 3.0	2.9 3.0	2.9 3.0	2.9 3.0	3.0	2.9 3.0	2.9		2.9	
1800 1930 2100 2230					3.0 2.9	3.0 2.9	3.0 2.9	3.0 2.9	2.9	3.0	3.0	3.0 2.9	2.9	3.0 2.9
2400	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
DATE	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23
0130 0300 0430	2.9 3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
0600 0730 0900 1030	3.0 2.9				2.9 3.0		2.9	2.9 3.0						
1030 1200 1330 1500 1630 1800 1930 2100	2.9				3.0 2.9		3.0 3.0 2.9	3.0 2.9						
2230 2400	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9

LAKE MICHIGAN, STATION 39, 210 m continued.

DATE	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9
TIME	0.0	0.0	2.0	2.0	2 0					2.0				
0130 0300	2.9	2.9	3.0	3.0	3.0	3.0	3.0	2.9 3.0	3.0	3.0	3.0	3.0	2.9	2.9
0430								3.0						
0600		2.9								3.0				
0730		3.0					3.0	3.0	3.0	2.9				
0900		3.0				3.0	2.9	2.9	2.9	3.0				
1030					3.0	2.9	2.,	2.,	2.9	3.0				
1200			3.0	3.0	2.9				3.0					
1330		3.0	2.9	2.9				2.9						
1500		2.9			2.9	2.9	2.9	3.0						
1630				2.9	3.0	3.0	3.0							
1800			2.9	3.0								3.0		
1930		2.9	3.0									2.9		
2100		3.0					3.0							
2230							2.9							
2400	2.9	3.0	3.0	3.0	3.0	3.0	2.9	3.0	3.0	3.0	3.0	2.9	2.9	2.9
DATE	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23
TIME														
0130	2.9	3.0	3.0	3.0	3.0	3.0	2.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0
0300 0430						2.9								
0600						3.0								
0730	2.9					3.0								3.0
0900	3.0													2.9
1030	3.0													2.,
1200						3.0	2.9							
1330						2.9	3.0	3.0						
1500						3.0		2.9						
1630							3.0							
1800							2.9	2.9						
1930								3.0						
2100						3.0								
2230						2.9								
2400	3.0	3.0	3.0	3.0	3.0	2.9	2.9	3.0	3.0	3.0	3.0	3.0	3.0	2.9
DATE	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6
TIME					0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0
0130	2.9	2.9	2.9	2.8	2.8	2.9	2.8	2.8	2.9	3.0	3.0	2.9	2.9	3.0
0300			2.8	2.7								2.9		
0430 0600		2.9		2.8	2.8	2.9						3.0		
0730		2.8			2.9	2.8				3.0		3.0	2.9	
0900		2.0			2.8	2.0				2.9			3.0	
1030				2.8	2.0			2.8		2.5			3.0	
1200	2.9	2.8	2.8	2.9				2.9		2.9				
1330	2.8	2.9	2.9				2.8			3.0				
1500							2.9		2.9					
1630				2.9					3.0			3.0		
1800	2.8		2.9	2.8		2.8	2.9				3.0	2.9		3.0
1930	2.9		2.8			2.9	2.8				2.9			2.9
2100														
2230						2.9								
2400	2.9	2.9	2.8	2.8	2.8	2.8	2.8	2.9	3.0	3.0	2.9	2.9	3.0	2.9

LAKE MICHGAN, STATION 39, 210 m continued.

DATE	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20
TIME 0130 0300	2.9	2.9	3.0	2.9	3.0	3.0	3.0	2.9	3.0	3.0	3.0	3.0	3.0	3.0
0430 0600 0730	2.9	3.0		2.9 3.0			3.0 2.9	2.9						
0900 1030 1200	3.0	2.9			3.0 2.9	3.0 2.9	2.9 3.0	3.0			3.0 2.9			
1330 1500	3.0	2.9 3.0	3.0 2.9				0.0					3.0		
1630 1800 1930	2.9				2.9 3.0		3.0 2.9	3.0		3.0	2.9 3.0	2.9		
2100 2230 2400	2.9	3.0 2.9 2.9	2.9	3.0	3.0	2.9 3.0 2.9	2.9	2.9	3.0	2.9	3.0	2.9 3.0 3.0	3.0	3.0
DATE	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4
TIME 0130 0300	3.0 3.0	3.0	4-23 3.0	2.9	3.0	3.0	3.0	3.0 3.1	3.0	3.0	5-1	5-2	5-3	5-4
0130 0300 0430 0600 0730	3.0							3.0			5-1	5-2	5-3	5-4
0130 0300 0430 0600 0730 0900 1030 1200	3.0 3.0 3.1 3.1			2.9				3.0 3.1 3.1		3.0 3.0 2.9 2.9 3.0	5-1	5-2	_5-3	5-4
0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630	3.0 3.0 3.1 3.1		3.0	2.9			3.0	3.0 3.1 3.1 3.0 3.0		3.0 3.0 2.9	5-1	5-2	5-3	5-4
0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1800 1930 2100	3.0 3.0 3.1 3.1		3.0 2.9 2.9 3.0	2.9			3.0 3.1 3.1	3.0 3.1 3.1 3.0		3.0 3.0 2.9 2.9 3.0 2.9 2.9	5-1	5-2	5-3	5-4
0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930	3.0 3.0 3.1 3.1		3.0 3.0 2.9	2.9 2.9 3.0			3.0 3.1 3.1	3.0 3.1 3.1 3.0 3.0		3.0 3.0 2.9 2.9 3.0 2.9 2.9		5-2	5-3	5-4

LAKE MICHIGAN - STATION 39. Depth 240 m. Start 2 December 1962, 1650 CST; end 19 July 1963, 1000 CST. Instrument serial no. 124, film record 20,191. No temperature correction.

DATE	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15
0130 0300 0430		6.0	6.0	6.0	6.0	5.9 5.9 6.0	6.0	6.0	6.0	6.0	6.1 6.2	6.1	6.2 6.0	6.3 6.2
0600 0730 0900 1030 1200						•••							6.0 6.1	6.2 6.3 6.3 6.2 6.1
1330 1500 1630 1800 1930 2100 2230	6.0				6.0	6.0					6.2 6.1 6.0	6.1 6.2		6.1 6.0
2400	6.0	6.0	6.0	6.0	5.9 5.9	5.9 5.9	6.0	6.0	6.0	6.0	6.0	6.2	6.1 6.3	6.0
DATE	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
0130 0300	6.0	6.5 6.8	7.0	7.0 6.9	6.1	6.2 6.2	6.1	6.3 6.4	6.3 6.7	6.7 6.6	6.4 6.5	6.5	6.5	6.3
0430 0600 0730 0900	6.0	6.9	7.0 6.9 6.7	6.8 6.9 6.9		6.3	6.1 6.3 6.3	6.3 6.3 6.2 6.2	6.4 6.3 6.5 6.6	6.6 6.5 6.4	0.5		6.5 6.4 6.4 6.5	6.5
1030 1200	6.1		6.8	6.7 6.4			6.1	6.3 6.6	6.4 6.2	6.5			0,5	
1330 1500 1630	6.1 6.0 6.0	6.9	6.8	6.1	6.1 6.2	6.2 6.1	6.1 6.2	6.3	6.3 6.5 6.7			(=		6.5 6.4
1800 1930	6.1	7.0	0.9		6.2 6.3		6.2	6.4 6.5	6.6			6.5 6.4		6.4 6.5
2100 2230 2400	6.1 6.3	7.0 7.1 7.1	6.9 6.8 7.0	6.1	6.2 6.3 6.3	6.1	6.0	6.5 6.1 6.3	6.6 6.7	6.5 6.4	6.5	6.4	6.5 6.3 6.3	6.5 6.4
DATE	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
TIME														
0130 0300	6.5	6.4	6.3	6.3	6.3	6.5	6.5	6.4 6.5	6.3	6.2	6.2	6.1	6.0	6.0
0430 0600 0730 0900	6.4 6.4 6.5		6.4 6.3	6.3 6.4 6.3				6.5 6.4		6.2 6.1 6.2	6.2 6.1			
1030 1200 1330	6.5 6.4								6.3 6.2					
1500 1630 1800 1930 2100		6.4 6.3		6.3 6.4	6.3 6.4 6.4			6.4 6.3		6.2 6.3 6.2		6.1 6.0		
2230 2400	6.4	6.3	6.3	6.4	6.5 6.5	6.5	6.5	6.3	6.2	6.2	6.1	6.0	6.0	6.0

LAKE MICHIGAN, STATION 39, 240 m continued.

DATE	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26
TIME 0130 0300	6.0	5.9	5.7	5.7 5.8	5.8	5.8 5.8	5.9 5.8 5.8	5.7	5.7	5.7	5.6	5.6 5.7	5.7	5.8
0430 0600 0730 0900			5.7	5.7		5.9	5.8 5.7 5.8	5.7 5.8	5.8				5.7 5.6 5.6	
1030 1200 1330	6.0		5.8			5.9 5.8	5.8 5.7	5.8 5.7	5.8		5.6 5.7		5.7 5.8	5.8 5.7
1500 1630 1800	5.9 6.0 5.9	5.9		5.7		5.8 5.9	5.7 5.8 5.8		5.7 5.6 5.5		5.7	5.7	5.8	
1930 2100		5.8		5.8			5.7		5.5	5.7 5.6	5.6	5.6	5.7	
2230 2400	5.9	5.8 5.7	5.8	5.8	5.8	5.9	5.7	5.7	5.6 5.7	5.6	5.6	5.7 5.7	5.7 5.8	5.7
DATE	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
TIME 0130 0300	5.7 5.8	5.7	5.7	5.7	5.8	5.8	5.7 5.8	5.8 5.7	5.7 5.8	5.7	5.7	5.8	5.8	5.8
0430 0600 0730	5.7			5.7 5.8 5.8	5.8 5.7		5.8 5.9	5.7 5.8						
0900 1030		5.7		5.7	5.7					5.7 5.8	5.7 5.8			
1200 1330 1500		5.7			5.8					5.0	J.0			
1630 1800 1930							5.9 5.8	5.8		5.8				
2100 2230						5.8 5.7		5.7	5.8 5.7	5.7				
2400	5.7	5.7	5.7	5.7	5.8	5.7	5.8	5.7	5.7	5.7	5.8	5.8	5.8	5,8
DATE	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23
0130 0300	5.8	5.7 5.7	5.7 5.8	5.7	5.7 5.8	5.8	5.8 5.8	5.8 5.8	5.7 5.8	5.8	5.7 5.8	5.8	5.8	5.8
0430 0600 0730		5.8	5.8 5.7		5.8 5.7		5.7	5.7	5.8 5.7	5.8 5.7 5.8	5.8 5.7 5.8			
0900 1030	5.8 5.7	5.8 5.7				5.8 5.7								
1200 1330	3.7	3.7				5.7 5.8		5.7 5.6		5.8 5.7				
1500 1630							5.7	5.6 5.7	5.7	5.8		5.8 5.7		
1800 1930 2100							5.8		5.8			5.8		
2230 2400	5.7	5.7	5.7	5.7	5.7	5.8	5.8	5.7	5.8	5.8	5.8	5.8	5.8	5.8

DATE	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9
TIME 0130 0300	5.8	5.8	5.7	5.7	5.7 5.8	5.8	5.8	5.7	5.7	5.7	5.6 5.7	5.7	5.6 5.7	5.7
0430 0600 0730			5.7 5.8	5.7 5.8										
0900 1030 1200 1330		5.8 5.7	5.7	5.8 5.7						5.7 5.6 5.6 5.7	5.7 5.6 5.7			
1500 1630 1800 1930	5.8 5.7									5.7 5.6	J. /	5.7 5.6 5.7		5.7 5.6
2100 2230 2400	5.7	5.7	5.7	5.7	5.8	5.8	5.8	5.7	5.7	5.6	5.7	5.7 5.6	5.7	5.6
DATE	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23
TIME 0130 0300 0430	5.6 5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.6	5.7	5.7
0600 0730 0900 1030			5.7 5.6									5.6 5.7		
1200 1330 1500 1630 1800														
1930 2100 2230		5.7 5.6	5.6 5.7								5.7			
2400	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.6	5.7	5.7	5.7
DATE TIME	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6
0130 0300 0430	5.8	5.8	5.8	5.8 5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8 5.7 5.7	5.8
0600				5.7									5.8	
0730 0900 1030 1200 1330 1500	5.8 5.7		5.8 5.7 5.7	5.7 5.8	5.8 5.7 5.8									
1630 1800 1930 2100 2230	5.7 5.8		5.8					5.8 5.7						
2400	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8

DATE	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20
TIME 0130 0300	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
0430												5.8		
0600 0730												5.9 5.9		
0900								5.8				5.8		
1030 1200								5.9 5.9						
1330								5.8						
1500														
1630 1800										5.8				
1930										5.7				
2100										5.7				
2230 2400	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8 5.8	5.8	5.8	5.8	5.8
DATE	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4
TIME 0130	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	- 0			5.7
0300	٥.٥	5.8	٥.٥	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.9	5.9	5.8	5./
0430		5.7			5.8									
0600 0730		5.8			5.7 5.8									
0900					5.7									
1030 1200								5.8						
1330								5.7						
1500					5.7			5.7				5.9		
1630 1800					5.8			5.8		5.8		5.8		
1930				5.8						5.9			5.8	
2100		5.8		5.9									5.7	
2230 2400	5.8	5.7 5.8	5.8	5.9 5.8	5.8	5.8	5.8	5.8	5.8	5.9	5.9	5.8	5.7	5.7
DATE	5-5	5-6	5-7	5-8	5-9	5-10	5-11	5-12	5-13	5-14	5-15	5-16	5-17	5-18
TIME 0130	5.7	5.9	5.8											
0300	3.7	3.9	5.7											
0430	5.7		5.4											
0600 0730	5.8	5.9	5.6 5.8											
0900		5.6	5.8											
1030			Data	ends.										
1200 1330		5.6 5.9		torn.										
1500														
1630 1800	5.8	5.9												
1930	5.9	5.8												
2100 2230														
2400	5.9	5.8												

LAKE MICHIGAN - STATION 3. Depth 10 m. Start 17 November 1963, 1000 CST: end 23 March 1964, 1400 CST.

Instrument serial no. 366, film record 20,005. Initial cal. 0°C; final cal. -0.3°.

DATE 11-17 11-18 11-19 11-20 11-21 11-22 11-23 11-24 11-25 11-26 11-27 11-28 11-29 11-30 TIME 0130 11.0 10.9 11.3 11.0 10.3 10.6 10.2 9.9 10.0 9.8 9.4 9.0 8.6 0300 11.0 10.8 10.9 8.9 8.6 0430 10.9 10.8 10.6 10.0 9.8 8.9 8.5 0600 10.8 10.8 10.5 9.9 9.9 8.8 8.4 0730 10.6 10.7 10.4 10.2 9.8 0900 10.3 10.6 10.3 10.3 10.1 9.9 9.8 9.4 8.8 1030 10.6 10.8 10.4 10.2 10.0 10.0 9.4 9.3 8.7 1200 11.2 10.9 10.6 10.7 10.2 9.8 10.1 9.9 9.3 10.3 1330 11.2 10.7 10.8 9.6 9.8 8.4 1500 11.3 10.8 10.9 10.4 10.9 9.5 9.8 9.3 9.3 8.3 1630 10.8 10.5 10.3 9.5 9.7 9.4 9.2 1800 10.9 10.9 9.6 9.8 9.1 8.3 1930 11.0 11.3 10.5 9.7 9.4 8.2 9.5 2100 11.1 11.2 10.4 9.8 9.1 8.7 8.1 2230 11.3 11.2 11.2 10.3 9.8 10.1 9.5 9.0 8.6 7.9 2400 11.1 10.9 11.3 11.1 10.3 10.5 10.3 9.9 10.0 9.8 9.4 9.0 8.6 7.6 DATE 12-1 12-2 12-3 12-4 12-5 12-6 12-7 12-8 12-9 12-10 12-11 12-12 12-13 12-14 TIME 0130 7.5 7.7 8.3 7.9 7.7 7.3 7.7 7.3 6.5 6.3 6.1 5.3 5.5 4.9 0300 7.6 7.8 8.2 7.7 7.3 7.8 6.0 5.4 0430 7.7 7.9 7.6 7.0 7.7 7.3 6.0 5.3 0600 7.8 8.0 7.3 6.9 7.2 5.9 5.3 0730 8.0 8.1 7.9 7.2 6.7 6.8 5.9 5.2 5.3 0900 8.1 7.8 7.2 7.0 7.7 6.2 5.8 5.2 1030 8.3 7.7 7.0 7.3 7.5 6.3 5.8 4.9 4.9 1200 8.3 8.1 7.7 6.7 7.4 7.4 6.4 6.5 5.7 5.2 4.8 4.7 1330 8.4 8.3 7.8 6.6 7.5 6.6 6.4 5.6 5.3 4.6 1500 8.4 8.1 6.6 7.6 7.4 6.5 5.5 5.3 4.5 1630 8.3 6.7 6.8 6.4 5.4 5.4 1800 8.3 7.8 6.9 6.4 6.3 6.3 5.4 4.5 5.4 1930 8.2 8.1 8.2 7.9 7.1 7.6 6.8 6.2 5.3 4.4 2100 8.0 8.3 8.1 7.7 7.2 7.7 7.3 6.1 5.5 2230 7.7 8.0 7.3 7.4 4.8 2400 7.6 8.3 8.0 7.7 7.3 7.7 7.4 6.5 6.3 6.1 5.3 5.5 4.9 4.4 12-15 12-16 12-17 12-18 12-19 12-20 12-21 12-22 12-23 12-24 12-25 12-26 12-27 12-28 DATE TIME 0130 4.4 4.4 3.4 3.0 3.1 2.8 2.6 2.1 1.2 0.8 1.3 1.1 1.0 0.6 2.9 2.8 2.0 0300 4.5 3.7 3.0 1.1 0.9 1.3 0.9 0430 2.9 2.7 1.9 1.0 1.1 4.6 3.6 1.0 1.2 0.8 0.6 3.4 0600 2.7 1.8 1.0 1.1 1.2 0.5 1.2 0730 3.3 2,5 1.8 0.9 1.2 1.2 0.4 0900 4.4 2.3 1.7 0.9 1.1 1.1 1.3 0.3 1030 4.3 1.6 0.8 1.2 1200 4.3 2.9 2.6 1.5 1.3 1.3 1330 4.0 3.0 2.7 2.5 1.4 0.8 1.4 1.2 2.6 1500 4.6 3.9 3.1 2.4 1.4 0.7 1.5 1.1 0.3 1630 4.5 4.3 3.2 2.3 1.3 0.2 2,4 0.8 0.5 1800 4.4 3.3 2.4 1.1 1930 4.3 3.2 2.5 2.3 1.3 1.2 0.7 2.6 1.2 1.5 2100 4.1 2.1 2.3 1.2 2230 3.9 3.0 2.7 2.2 1.3 1.3 1.1 2.6 2.2 1.2 1.3 1.2 1.0 0.7 0.5 2400 4.4 3.5 3.0 3.2 2.8 0.7

DATE	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11
0130 0300 0430 0600 0730 0900	0.5	0.4	0.4	0.6 0.6 0.5	0.4 0.5 0.5 0.6	1.0 1.0 1.1	0.8	0.8	0.8	0.4	0.7 0.7 0.6 0.5	0.4 0.4 0.5 0.5	0.5 0.5 0.4	0.0
1030 1200 1330 1500 1630 1800	0.5 0.6 0.6 0.5		0.5	0.5	0.7	0.9	0.8 0.7	0.8 0.7	0.8 0.7 0.7 0.6	0.4 0.5 0.5	0.5	0.6	0.4	0.0 0.1 0.2
1930 2100 2230 2400 DATE	0.4 0.4 0.3 0.3	0.4 0.6 1-13	0.6 1-14	0.4 1-15	0.8 0.9 1.0 1-16	0.8 1-17	0.8 0.8 1-18	0.7 0.8 1-19	0.5 0.5 0.4 0.4	0.6 0.7 0.7 1-21	0.4 1-22	0.6 0.6 0.5 1-23	0.2 0.1 0.1 0.0	0.2 0.1 0.1 1-25
TIME 0130	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0,1	0.1	0.1	0.1	0.1	0.2	0.1
0300 0430 0600 0730 0900 1030 1200 1330	0.1 0.2 0.1			0.1 0.2 0.1									0.2	0.1
1500 1630 1800 1930 2100					0.1		0.0					0.1	0.1 0.2	0.0 0.2 0.3
2230 2400	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2 0.1	0.3
DATE	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8
0130 0300 0430 0600	0.3	0.3	0.3	0.1 0.1 0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.3
0730 0900										0.2				
1030 1200 1330 1500 1630 1800			0.3 0.2 0.2 0.1		0.0			0.1 0.2				0.1		
1930 2100 2230 2400	0.3	0.3	0.1	0.0	0.1	0.1	0.1 0.2 0.1 0.1	0.2	0.2	0.1	0.1	0.2	0.3	0.3

DATE	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22
TIME 0130	0.3	0.2	0.2	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1
0300 0430						0.1						0.1	0.1	
0600				0.1		0.2		0.1						
0730 0900				0.0				0.2						
1030	0.3													
1200	0.2													
1330 1500		0.2	0.2			0.2			0.2			0.2		
1630		0.1	0.1			0.1			0.1			0.1		
1800					0.0								0.2	
1930 2100		0.1			0.1								0.1	0.1
2230		0.2												0.0
2400	0.2	0.2	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
DATE	2-23	2-24	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7
TIME 0130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.5	0.6
0300														
0430 0600														
0730		0.1						0.1						
0900		0.0						0.2					0.5	
1030									0.2			0.3	0.6	0.6
1200 1330		0.0							0.3			0.4		0.5
1500		0.1	0.1									0.5		
1630			0.0						0.3					
1800 1930									0.2					
2100						0.1			0.3					
2230			0.0			0.0								
2400	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.5	0.6	0.5
DATE	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21
0130 0300	0.5	0.5	0.6	0.8	0.8	0.9	1.3	1.3	1.4	1.5	1.6 1.5	1.4	1.4	1.5
0430														,
0600					0.8			1.3						
0730 0900		0.5 0.4			0.9	0.9		1.4				1.4 1.5		
1030		0.5				1.1		1.3	1.4		1.5	1.4		
1200					0.9			1.4	1.5	1.5	1.6			
1330 1500		0.5			1.0	1.1				1.6 1.7	1.5	1.4 1.5		
1630		0.6				1.2			1.5	1.7		1.4		
1800			0.6						1.6	1.7			1.4	
1930 2100			0.7			1.2			1.5	1.8 1.7			1.5	
2230			0.7			1.3				1.7	1.5			
2400	0.5	0.6	0.8	0.8	1.0	1.3	1.3	1.4	1.5	1.6	1.4	1.4	1.5	1.4

DATE	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4
TIME														
0130	1.4	1.5												
0300														
0430	1.4													
0600	1.3													
0730	1.3													
0900	1.4													
1030														
1200		1.5												
1330		End.												
1500		End.												
1630														
1800	1.4													
1930	1.5													
2100														
2230														
2400	1.5													

LAKE MICHIGAN - STATION 3. Depth 15 m. Start 17 November 1963, 1000 CST; end 23 March 1964, 1400 CST. Instrument serial no. 343, film record 20,006. Initial cal. none; final cal. -0.4°C.

DATE	11-17	11-18	11-19	11-20	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28	11-29	11-30
TIME														
0130		11.3	11.2	11.0	11.0	11.4	10.8	10.4	10.4	10.2	9.9	9.9	10.0	9.6
0300				10.9					10.3	10.2	9.9			
0430		11.3		10.8	11.0			10.4	10.1	10.1	9.9		10.0	9.6
0600		11.2		10.7	10.9		10.8	10.5	10.1	9.8	10.0		9.7	9.5
0730		11.1		10.6	10.8		10.9	10.4	10.2	9.6	10.0		9.4	9.4
0900		11.0		10.7	10.8		11.0		10.3	9.5	9.9			
1030	11.2		11.2	10.8	10.9		11.1	10.4	10.4	9.5	10.1		9.4	9.4
1200		11.0	11.3	10.9	10.9			10,5		9.6	10.0		9.5	9.3
1330		11.1		11.0	11.0		11.1			9.7	9.9		9.5	9.2
1500		11.2		11.1	11.1		10.8			9.8	9.8		9.6	9.1
1630					11.2	11.4	10.6		10.4		9.7			
1800			11.3			11.2	10.4		10.3		9.7			
1930	11.2		11.2		11.2	11.1			10.2	9.8	9.8			
2100	11.3		11.1		11.3	11.0			10.1	9.9	9.9		9.6	
2230				11.1	11.4	10.8			10.2				9.5	
2400	11.3	11.2	11.1	11.0	11.4	10.8	10.4	10.5	10.2	9.9	9.9	9.9	9.6	9.1

DATE	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14
TIME	0.0	0.5	0 0	7.0	0 /	0.0	7.0		7.					
0130 0300	9.0	8.5	8.2 8.4	7.8 7.8	8.4	8.0	7.2 6.8	6.9 7.2	7.6	6.6	6.7	6.4	5.9	5.3
0430	9.0		8.5	7.9		8.0	0.0	7.4	6.7 6.7	6.8	6.6		5.8 5.7	5.4 5.6
0600	8.9		8.7	8.2		8.1	6.8	7.5	6.6				5.6	5.9
0730	0.7		8.7	8.4		0.1	7.0	7.6	6.6			6.4	5.5	3.9
0900			8.6	8.5			7.2	7.6	7.0			6.3	5.5	
1030		8.5	8.5				7.3	7.7	7.4			6.2	5.5	5.9
1200	8.9	8.4	8.5		8.4		7.4	7.7	7.6				5.4	5.7
1330	8.8	8.4	8.4		8.3		7.5	7.8	7.6			6.2		5.6
1500	8.7	8.3	8.1	8.5	8.3	8.1	7.4	7.9	7.5			6.1		5.5
1630	8.6	8.1	7.7	8.4	8.2	8.0		7.9					5.4	5.5
1800	8.5	7.9	7.8	8.4	8.1			7.8				6.1	5.3	5.4
1930		7.8		8.3		8.0	7.4	7.8	7.5	6.8	6.6	6.0		5.4
2100		7.8				7.8	7.2	7.6	6.8	6.7	6.5	6.0		5.2
2230		7.9				7.6	7.0		6.4			5.9		4.8
2400	8.5	8.1	7.8	8.3	8.1	7.4	6.8	7.6	6.4	6.7	6.5	5.9	5.3	4.7
DATE	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28
0130	4.5	4.6	4.7	4.1	3.4	3.2	2.5	2.9	2.8	1.9	1.1	1.5	1.6	1.3
0300			4.6	4.3		3.3		2.9	2.6	1.7				
0430	4.5	4.6		4.2			2.5	2.8	2.6	1.6	1.1			
0600	4.6	4.4					2.6		2.5	1.5	1.2		1.6	
0730	4.7		4.6	4.2	3.4				2.4	1.5		1.5	1.7	
0900	4.7		4.5	4.0	3.3		2.6		2.3	1.4		1.6	1.5	
1030	4.8	4.4		3.6	3.2		2.8				1.2		1.4	
1200	4.9	4.5		3.6	3.1	3.3	2.9		2.3		1.3		1.3	1.3
1330	5.0	4.6		3.8		3.2			2.2			1.6	1.3	1.2
1500	5.1	4.6	, -	3.8		3.2			2.1	1.4	1.3	1.5	1.4	
1630		4.7	4.5	3.6		3.5				1.3	1.4	1.4		
1800 1930	5.1		4.4	3.5 3.4		2.9 2.7				$\frac{1.2}{1.1}$	1.4 1.5	1.3	1.4 1.5	
2100	5.1		4.3	3.4		2.5				1.1	1.5	1.4	1.5	
2230	4.8		4.3			2.5			2.1			1.6	1.4	
2400	4.8	4.7	4.1	3.4	3.1	2.5	2.9	2.8	2.0	1.1	1.5	1.6	1.3	1.2
DATE		12-30		1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11
TIME	12-29	12-30	12-31										1 10	
0130	1.2	0.8	0.9	0.7	1.2	1.3	1.2	1.2	1.2	1.2	0.9	0.8	0.6	0.8
0300			0.8	0.8							0.8		0.6	0.8
0430			0.8	0.8		1.3					0.8		0.5	0.7
0600		0.8	0.7	1.0		1.4				1.2	0.7			
0730		0.9	0.6	1.1		1.4	1.2			1.1	0.7			
0900	1.0			1.2		1.3	1.3				0.6	0.8	0 5	
1030	1.2			1.2		1.3						0.7	0.5	
1200 1330	1.1			$\frac{1.3}{1.4}$		$\frac{1.1}{1.1}$							0.5	0.7
1500	0.9			1.4		1.2						0.7	0.7	0.6
1630	0.9				1.2	1.2						0.6	0.7	0.0
1800	0.6				1.3		1.3			1.1			0.8	0.6
1930					1.2		1.2			1.0	0.6			0.5
2100				1.4	-						0.7			0.4
2230	0.6			1.3							0.7			
2400	0.7	0.9	0.6	1.2	1.2	1.2	1.2	1.2	1.2	1.0	0.8	0.6	0.8	0.4

DATE	1-12	1-13	1-14	1-15	1-16	1-17	118	1-19	1-20	1-21	1-22	1-23	1-24	1-25
0130 0300 0430	0.3 0.2	0.3 0.2	0.2	0.2	0.2	0.2	0.2	0.3 0.3 0.2	0.2	0.2	0.2	0.2	0.2	0.3
0600 0730 0900	0.2	0.2											0.2	
1030	0.2	0.3												
1200		0.3				0.2								
1330 1500		0.2				0.3								
1630														
1800 1930	0.2					0.3	0.2							
2100	0.4													
2230 2400	0.4	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3
DATE	1-26	1-27	1-28	1-29.	1-30	1-31	21	2-2	2-3	2-4	2-5	2-6	2-7	2-8
TIME 0130 0300	0.3	0.4	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2 0.3	0.3	0.4	0.5
0430 0600			0.5											
0730			0.6		0.4									
0900 1030				0.5	0.5			0.3					0.4	
1200				0.4	0.5			0.2					0.5	
1330 1500	0.3				0.4									
1630	0.4	0.4												
1800 1930		0.5				0.4						0.3	0.5	
2100						0.3						014	0.0	
2230 2400	0.4	0.4	0.6	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.3	0.4	0.6	0.5
DATE	2-9	2-10	2-11	2-12	2-13	2-14	215	2-16	2-17	2-18	2-19	2-20	2-21	2-22
TIME 0130	0.5	0.4	0.5	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0,1
0300 0430			0.5			0.3								0.1
0600		0.4												0.0
0730 0900		0.5								0.3		0.3		
1030										0.4		0.4		
1200 1330													0.3	
1500													0.2	
1630 1800				0.4				0.2				0 /		
1930								0.3				0.4		
2100 2230	0.5			0.3						0.4				
2400	0.4	0.5	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.0

DATE	2-23	2-24	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7
0130 0300 0430	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2 0.2 0.3	0.4	0.4	0.7	0.7
0600 0730 0900										•••				0.7 0.8
1030 1200 1330 1500 1630 1800 1930									0.1	0.3		0.4 0.5 0.6		0.8
2100 2230												0.6		0.5
2400	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.4	0.4	0.7	0.7	0.9
DATE	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21
0130 0300 0430	0.9	1.0	1.1	1.2	1.2	1.3 1.3 1.2	1.4	1.4	1.4	1.4	1.5 1.4	1.4	1.4	1.4
0600 0730 0900 1030			1.1 1.2				1.4							
1200 1330 1500 1630		1.0 1.1	1.2 1.3		1.2 1.3	1.2	1.3 1.4			1.4 1.5 1.6				
1800 1930	0.9					1.3 1.4								1.4 1.5
2100 2230	1.0		1.3							1.6				
2400 DATE	1.0 3-22	1.1 3-23	1.2 3-24	1.2 3-25	1.3 3-26	1.4 3-27	1.4 3-28	1.4 3-29	1.4 3-30	1.5 3-31	1.4 4-1	1.4 4-2	1.4 4-3	1.5 4-4
0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930	1.5	1.5 1.5 1.4 1.4 1.5 1.6	ı£											
2100 2230 2400	1.6 1.5 1.5													

LAKE MICHIGAN - STATION 4. Depth 10 m.
Start 17 November 1963, 1300 CST; end 12 April 1964, 0905 CST.
Instrument serial no. 179, film record 20,016. Initial cal. 0°C; final cal. 0°C.

DATE	11-17	11-18	11-19	11-20	11-21	11-22	1123	11-24	11-25	11-26	11-27	11-28	11-29	11-30
TIME 0130		11.4	11.4	11.3	11.3	11.3	11.2	10.9	10.7	10.8	10.6	10.3	10.0	9.1
0300 0430			11.4				$11.1 \\ 11.1$	10.9 10.8		10.8	10.6 10.5	10.2		
0600 0730			11.3				11.0	10.8		10.7			10.0	
0900								10.7 10.8	10.7 10.8		10.5 10.4		9.9	
1030 1200								10.0	10.0		10.4		9.5	
1330 1500	11.5 11.4												9.2	
1630	TT.4											10.2	9.1	
1800 1930						11.3				10.7		10.1		
2100 2230						11.2	11.0			10.6				
2400	11.4	11.4	11.3	11.3	11.3	11.2	10.9	10.8	10.8	10.6	10.4	10.1	9.1	9.1
DATE	12-1	12-2	12-3	12-4	12-5	12-6	127	12-8	12-9	12-10	12-11	12-12	12-13	12-14
TIME 0130	9.1	8.8	8.7	8.9	8.7	8.2	8.3	8.2	8.1	7.9	7.5	7.4	6.9	6.3
0300 0430	9.1			8.9 8.8	8.7 8.8		8.3		8.1 8.0	7.9		7.4 7.3		6.3 6.2
0600	9.0	8.8	8.7				8.2			7.8		7.3 7.2	6.9	
0730 0900	9.0	8.9	8.8			8.2		8.2		7.4			6.8	
1030 1200	8.9					8.3		8.1		7.5	7.5	7.2 7.1		6.2 6.1
1330			8.8								7.4			
1500 1630			8.9		8.8 8.7							7.1 7.0		
1800 1930		8.9			8.6 8.4								6.8 6.7	6.1
2100	8.9	8.8			8.2				8.0				6.7	0.0
2230 2400	8.8 8.8	8.8	8.9	8.8 8.7	8.2	8.3	8.2	8.1	7.9 7.9	7.5	7.4	7.0 6.9	6.6 6.4	6.0
DATE			12-17		12-19		12-21	12-22						12-28
TIME 0130	6.0	5.7	5.6	5.5	5.3	4.9	4.5	4.6	4.4	4.0	4.0	4.0	4.0	4.0
0300	0.0	5.7	5.6	5.5	5.2	4.8	4.5							
0430 0600		5.8 5.8	5.5		5.2 5.1		4.6	4.6	4.4 4.3	4.0 4.1				
0730 0900		5.7		5.5 5.4	5.1			4.7	4.3					4.0 3.9
1030					5.0			4.5	4.2					3.7
1200 1330	6.0			5.4 5.3		4.8 4.7		4.5		4.1				3.9
1500	5.9			3,3		4.7		4.4		4.0				3.8
1630 1800						4.6 4.5			4.2					3.8
1930 2100	5.9				5.0			4.4	4.1					3.7 3.6
2230	5.8				4.9	, -		4.3						
2400	5.7	5.7	5.5	5.3	4.9	4.5	4.6	4.3	4.0	4.0	4.0	4.0	4.0	3.6

DATE	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11
0130 0300	3.6 3.7	3.4	3.3	3.1	2.4	2.6	2.6	2.6	2.7	2.6	2.5	2.5	2.5	2.6
0430 0600 0730 0900 1030	3.7 3.6	3.4 3.5	3.3	3.1 3.0	2.4 2.5 2.5 2.6				2.7		2.5	2.5	2.5	
1200 1330 1500 1630 1800 1930	3.6 3.5		3.2	3.0 2.8 2.5 2.3 2.3 2.2				2.6						
2100 2230 2400	3.5 3.4	3.5 3.4 3.3	3.1	2.1 2.3 2.4	2.6	2.6	2.6	2.7	2.6	2.6	2.6	2.6 2.5 2.5	2.6	2.6
DATE	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25
0130 0300 0430 0600	2.6 2.6 2.5 2.5	1.9 1.9 1.8 1.7	1.1	1.3 1.3 1.4 1.5	1.1 1.2 1.2 1.3	1.3 1.3 1.2 1.1	0.9	0.9 0.9 1.0	1.0	1.2	1.2	1.2	1.2	1.2 1.2 1.3
0730 0900 1030	2.4	1.6 1.5 1.5	1.2	1.5	1.5	1.1			1.2					1.3 1.4
1200 1330 1500	2.3	1.4 1.3 1.2		1.4 1.4 1.3		0.9 0.8 0.9								1.4 1.5
1630 1800 1930 2100	2.3 2.2 2.1	1.1 1.3		1.3		0.0								1.5 1.4
2230 2400	2.0	1.4	1.3	1.2 1.1	1.3	0.9	0.9	1.0 0.9	1.2	1.2	1.2	1.2	1.2	1.4
DATE	1-26	1-27	1-28	1-29	1-20	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8
TIME 0130 0300 0430 0600	1.4 1.5 1.6	1.9	1.8 1.7	1.3 1.2 1.2 1.3	1.4 1.5	1.6 1.5	1.6	1.4	1.2	1.2	1.2 1.2 1.3	1.4	1.2 1.2 1.3 1.3	1.5
0730 0900 1030 1200 1330	1.6 1.7 1.8		1.6 1.6 1.5	1.3		1.6		1.4		1.2 1.1 1.1 1.2	1.3	1.4	1.4 1.4 1.5	1.5
1500 1630 1800	1.8	1.9	1.4	1.4			1.6				1.4	1.3		1.4 1.5
1930 2100 2230		1.8	1.4		1.5 1.6		1.5 1.5 1.4	1.3				1.2		1.5
2400	1.9	1.8	1,3	1.3	1.6	1.6	1.4	1.2	1.2	1.2	1.4	1.2	1.5	1.4

DATE	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22
TIME 0130 0300	1.4	1.0	1.0 1.1	1.3 1.3	1.4	1.4	1.4	1.4	1.3	1.2	1.4	1.5 1.5	1.5	1.3 1.3
0430 0600 0730 0900 1030	1.4 1.3 1.3		1.2	1.4	1.3			1.4 1.3		1.2 1.3	1.3	1.6 1.6 1.5	1.5 1.4 1.4 1.5	1.4 1.4 1.5
1200 1330 1500 1630 1800	1.2		1.3		1.3	1.4 1.5					1.5 1.6			1.5
1930 2100						1.5 1.4							1.5	1.4
2230 2400	1.1	1.0	1.2 1.3	1.4	1.4	1.4	1.4	1.3	1.3 1.2	1.3 1.4	1.6 1.5	1.5	1.4 1.3	1.3
DATE	2-23	2-24	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7
0130 0300	1.3	1.5	1.4	1.2	1.4	1.0	1.0	1.2	1.2	1.2	1.3	1.3	1.1 1.2	1.1
0430 0600 0730 0900 1030			1.3 1.3 1.2	1.2 1.3	1.4	0.8 0.8 0.7 0.8 0.9						1.3 1.2	1.2 1.1	
1200 1330 1500 1630 1800 1930	1.3				1.3 1.2 1.1 1.0	1,0	1.0 1.1 1.2			1.2		1.2 1.1 1.1 1.2 1.1		
2100 2230	1.4	1.5		1.3 1.4								1.0		
2400	1.5	1.4	1.2	1.4	1.0	1.0	1.2	1.2	1.2	1.3	1.3	1.0	1.1	1.1
DATE	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21
0130 0300 0430	1.1	1.2	1.2	1.2	1.3	1.2	1.1	1.1	1.2	1.3	1.3	1.3	1.3	1.2
0600 0730 0900 1030						1.2 1.1		1.1	1.2 1.3					
1200 1330 1500 1630	1.1 1.2			1.2 1.3				1.2						
1800 1930 2100					1.3 1.2								1.3 1.2	
2230 2400	1.2	1.2	1.2	1.3	1.2	1.1	1.1	1.2	1.3	1.3	1.3	1.3	1.2	1.2

LAKE MICHIGAN, STATION 4, 10 m continued.

DATE	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4
TIME	1.0	1.0		1.0	1.2	1.3	1.3	1.5	1.3	1.3	1.3	1.5	1.5	1.3
0130 0300	1.2	1.3	1.3	1.2	1.2	1.3	1.3	1.5	1.3	1.3	1.3	1.5	1.5	1.3
0430											1.3			1.2
0600	1.2										1.4			
0730	1.3													
0900							1.3			1.3				
1030							1.4			1.4				
1200					1.2									
1330					1.3						1.4			
1500								1.5			1.5			
1630 1800			1.3				1.4	1.4		1.4				
1930			1.2				1.5	1.4		1.3				
2100			1.2				1.5	1.4		1.5			1.5	
2230								1.3					1.4	
2400	1.3	1.3	1.2	1.2	1.3	1.3	1.5	1.3	1.3	1.3	1.5	1.5	1.4	1.2
DATE	4-5	4-6	, -	, ,			/ 11	,			,	, ,,	4-17	4-18
DALE	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-1/	4-18
TIME									4-13	4-14	4-15	4-16	4-17	4-18
TIME 0130	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.5	4-13	4-14	4-15	4-16	4-17	4-18
TIME 0130 0300									4-13	4-14	4-15	4-16	4-17	4-18
TIME 0130 0300 0430									4-13	4-14	4-15	4-16	4-17	4-18
TIME 0130 0300 0430 0600									4-13	4-14	4-15	4-16	4-17	4-18
TIME 0130 0300 0430 0600 0730				1.2			1.3	1.5	4-13	4-14	4-13	4-16	4-17	4-18
TIME 0130 0300 0430 0600 0730 0900				1.2			1.3	1.5			4-15	4-16	4-17	4-18
0130 0300 0430 0600 0730 0900 1030				1.2			1.3	1.5 1.5 Remov	ed fro	om.	4-15	4-16	4-17	4-18
TIME 0130 0300 0430 0600 0730 0900				1.2			1.3 1.3 1.4	1.5 1.5 Remov		om.	4-15	4-16	4-17	4-18
TIME 0130 0300 0430 0600 0730 0900 1030 1200				1.2			1.3 1.3 1.4	1.5 1.5 Remov	ed fro	om.	4-15	4-16	4-17	4-18
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630				1.2			1.3 1.3 1.4	1.5 1.5 Remov	ed fro	om.	4-15	4-16	4-17	4-18
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800				1.2			1.3 1.3 1.4	1.5 1.5 Remov	ed fro	om.	4-15	4-16	4-17	4-18
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930				1.2			1.3 1.3 1.4	1.5 1.5 Remov	ed fro	om.	4-15	4-16	4-17	4-18
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930 2100				1.2			1.3 1.3 1.4	1.5 1.5 Remov	ed fro	om.	4-15	4-16	4-17	4-18
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930				1.2			1.3 1.3 1.4	1.5 1.5 Remov	ed fro	om.	4-15	4-16	4-17	4-18

LAKE MICHIGAN - STATION 4. Depth 15 m. Start 17 November 1963, 1300 CST; end 12 April 1964, 0905 CST. Instrument serial no. 361, film record 20,017. Initial cal. 0°C; final cal. 0°C.

DATE	11-17	11-18	11-19	11-20	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28	11-29	11-30
0130 0300 0430		11.1	11.0	11.0	11.0	11.0	10.9	10.5 10.4 10.3	10.2 10.1	10.1	10.0	10.0 10.0 9.9	9.8 9.7 9.7	8.9
0600 0730		11.1					10.9 10.8	10.2					9.6 9.6	
0900		11.0					10.0	10.1					9.4	
1030 1200							10.8						9.2 9.0	
1330 1500	11.3 11.1						10.7					9.9	8.9	
1630 1800						11.0 10.9		10.1		10.1		9.8		
1930						10.9		10.2		10.0				
2100 2230							10.7							
2400	11.1	11.0	11.0	11.0	11.0	10.9	10.6	10.2	10.1	10.0	10.0	9.8	8.9	8.9
DATE	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14
0130 0300	8.9	8.4	8.3 8.3	8.3	8.2 8.1	7.9	8.0	7.9 7.9	7.7 7.7	7.4 7.3	7.0	6.9	6.1	6.0
0430	8.9		8.2	8.3				7.8	7.6	7.2				6.0
0600 0730	8.8 8.8			8.2	8.1 8.2		8.0			7.1 7.0		6.9 6.8		5.9
0900	8.7						7.9		7.6			6.7		
1030 1200	8.6 8.5								7.5			6.6 6.5	6.1	
1330	8.4											6.4	6.0	
1500					8.2	7.9						6.4		
1630 1800			8.2 8.3		8.0 8.0	8.0						6.3 6.3		5,9
1930		8.4	0.3		7.9			7.8			7.0	6.2		5.8
2100		8.3						7.7	7.5		6.9	6.1		
2230 2400	8.4	8.3	8.3	8.2	7.9	8.0	7.9	7.7	7.4 7.4	7.0	6.9	6.1	6.0	5.8
DATE	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28
TIME 0130	5.8	5.5	5.4	5.1	5.0	4.2	4.1	4.0	3.9	3.5	3.5	3.5	3.5	3.4
0300			5.4		4.9									
0430 0600			5.3		4.8					3.5 3.4				3.4
0730							4.1		3.9	3.4				3.3
0900					4.8		4.0		3.8					
1030 1200	5.8			5.1	4.7 4.6					3.4				
1330	5.7			5.0	4.0	4.2				3.5				
1500			5.3			4.1								3.3
1630 1800			5.2											3.2 3.1
1930					4.6				3.8					3.1
2100	5.7	5.5	- 0		4.4			4.0	3.6					
2230 2400	5.6 5.6	5.4 5.4	5.2 5.1	5.0	4.3 4.2	4.1	4.0	3.9 3.9	3.6 3.5	3.5	3.5	3.5	3.5	3.1

	DATE	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11
	TIME 0130	3.1	3.0	3.0	2.9	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.6
	0300	3.1	3.0	3.0	2.9	2.4	2.5	2.5	2.5	2.5	2.3	2.5	2.3	2.0	2.6
	0430														
	0600														
	0730														2.6
	0900					2.4									2.5
	1030			0.0		2.5									
	1200 1330	3.1		3.0	2.9										
	1500	3.1		2.9	2.8										
	1630	3.0			2.3								2.5		
	1800				2.1								2.6		
	1930				2.0										2.5
	2100				2.1										2.4
	2230				2.3										
	2400	3.0	3.0	2.9	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.4
	DATE	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25
	0130	2.4	1.8	1.0	1.1	1.1	1.1	0.8	0.8	0.9	1.1	1.0	1.1	1.1	1.1
-	0300	2.4	1.7		1.2		1.1	0.8							
	0430	2.3	1.6				1.0	0.6		0.9					1.1
	0600		1.5				1.0	0.7		1.0					1.2
	0730	2.3	1.3				0.9					1.0			
	0900	2.2	1.2				1.0	0.7	0.0	1.0		1.1			
	1030 1200	2.2	1.2 1.1				0.9	0.8	0.8	1.0 1.1					1.2 1.3
	1330	2.1	1.0				0.7		0.9	1.1					1.3
	1500	2.1	0.9				0.8				1.1				
	1630		1.0		1.2		•••				1.0				
	1800	2.1	1.1		1.1										
	1930	2.0	1.1	1.0											
	2100		1.2	1.1			0.8								
	2230	2.0	1.1				0.7	0 0	0.0		1.0				1.3
	2400	1.9	1.0	1.1	1.1	1.1	0.8	0.8	0.9	1.1	1.0	1.1	1.1	1.1	1.4
	DATE FIME	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8
	0130	1.4	1.9	1.9	1.1	1.1	1.2	1.3	1.3	1.1	1.1	1.0	1.1	1.1	1.4
	0300			1.8											1.4
	0430			1.8	1.1										1.3
	0600			1.7	1.0				1.3		1.1			1.1	1.2
	0730			1.6	1.0				1.2		1.0			1.2	1.2
	0900	٠,		1.5	1.1			1.3						1.2	1.1
	1030 1200	1.4 1.5		1.4				1.4	1.2					1.3	
	1330	1.6		1.4			1.2		1.1						
	1500	1.7		1.2			1.3								1.1
	1630	1.8		1.1								1.0			1.2
	1800	1.8								1.1		1.1		1.3	
	1930	1.9								1.0				1.4	
	2100 2230					1.1		1.4						1.4	
	2230 2400	1.9	1.9	1.1	1.1	1.2	1.3	1.3	1.1	1.0	1.0	1.1	1.1	1.4	1.2
	-400	1.,	1.0	***	***	1.2	1.0	1.5	***	1.0	1.0	***	***	1.0	1.2

			-											
DATE	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22
TIME														
0130	1.3	1.0	1.0	1.1	1.2	1.2	1.4	1.3	1.3	1.1	1.1	1.1	1.2	1.3
0300		1.0		1.2										
0430	1.3	0.9							1.3					
0600	1.2					1.2			1.2			1.1		1.3
0730	1.1					1.3						1.2		1.2
0900	1.0													
1030		0.9											1.2	
1200		1.0											1.3	
1330 1500		1.0 0.9				1.3	1.4							
1630		0.9				1.4	1.3							1 0
1800														1.2 1.1
1930		0.9												1.1
2100		1.0	1.0						1.2					
2230		0.9	1.1						1.1					
2400	1.0	0.9	1.1	1.2	1.2	1.4	1.3	1.3	1.1	1.1	1.1	1.2	1.3	1.1
DATE	2-23	2-24	2-25	2-26	2-27	2-28	2-29	3-1	32	3-3	3-4	3-5	3-6	3-7
TIME 0130	1.1	1.2	1.1	1.0	1.1	0.7	0.9	1.1	1.1	1.1	1.2	1.2	1.0	1.1
0300	1.1	1.2	1.1	1.0	1.1	0.6	0.9	1.1	1.1	1.1	1.2	1.2	1.0 1.1	1.1
0430						0.6	0.9						1.1	
0600			1.1			0.7	1.0							
0730			1.0			0.7	1.0			1.1		1.2	1.1	
0900			1.0			0.8				1.2		1.1	1.0	
1030						0.0						1.1	1.0	
1200					1.1							1.0		
1330				1.0	1.0									
1500				1.1	1.0								1.0	
1630					0.9		1.0						1.1	
1800		1.2			0.9		1.1							1.1
1930		1.1			0.8	0.8								1.2
2100	1.1					0.9								
2230	1.2				0.8									
2400	1.2	1.1	1.0	1.1	0.7	0.9	1.1	1.1	1.1	1.2	1.2	1.0	1.1	1.2
DATE	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21
TIME						<u> </u>			3 10	J. 11.7	J 10	3-17	3-20	J-21
0130	1.1	1.2	1.1	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.0	1.1	1.1	1.1
0300														
0430		1.2												
0600		1.1												
0730									1.1					
0900			1.1						1.0					
1030			1.0											
1200											1.0			
1330											1.1			
1500	1.1													
1630	1.2							1.0		1.1				
1800							1.0	1.1		1.0				
1930							1.1		1.0					
2100									1.1					
2230 2400	1.2	1.1	1.0	1.0	1.0	1.0	1 1	1 1	1 1	1 0				
2400	1.2	т.т	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.0	1.1	1.1	1.1	1.1

LAKE MICHIGAN, STATION 4, 15 m continued.

DATE	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4
TIME 0130 0300 0430 0600	1.1	1.1	1.2	1.1	1.1	1.1	1.2	1.2	1.3	1.2 1.2 1.3	1.4	1.4	1.3	1.1
0730 0900 1030						1.1			1.3 1.2					
1200 1330 1500 1630			1.2									1.4 1.3		
1800 1930 2100 2230		1.1	1.1					1.2 1.3		1.3 1.4			1.3 1.2	1.1
2400 DATE	1.1 4-5	1.2 4-6	1.1 4-7	1.1	1.1 4-9	1.2 4-10	1.2 4-11	1.3 4-12	1.2 4-13	1.4 4-14	1.4 4-15	1.3 4-16	1.2 4-17	1.0 4-18
TIME 0130 0300 0430 0600	1.1	1.1	1.1	1.1	1.2	1.3	1.3 1.3 1.4	4-12	4-13	4-14	4-13	4-10	4-17	4-10
0730 0900 1030	1.1 1.0			1.1	1.3		1 /							
1200 1330 1500 1630 1800 1930				1.2			1.4							
2100 2230 2400	1.0	1.1	1.1	1.2	1.3	1.3	1.5							

LAKE MICHIGAN - STATION 4. Depth 30 m. Start 17 November 1963, 1300 CST; end 12 April 1964, 0905 CST. Instrument serial no. 315, film record 20,018. Initial cal. -0.2°C; final cal. 0°C.

DATE	11-17	11-18	11-19	11-20	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28	11-29	11-30
TIME 0130		11.5	11.4	11.4	11.2	11.2	11.2	10.9	10.5	10.5	10.5	10.2	10.1	9.6
0300 0430				11.4				10.9 10.8						9.4
0600				11.3				10.0						9.2
0730			11.4											
0900			11.3											
1030		11.5		11 2			11.2	10.8			10.5			
1200 1330	11.7	11.4		11.3 11.2			11.1 11.0	10.7 10.6			10.4			
1500	11.5			11.2			11.0	10.6			10.3		10.1	
1630							10.9	10.5			10.3		10.0	
1800											10.2		9.9	
1930														
2100 2230			11.3 11.4										9.9 9.8	
2400	11.5	11.4	11.4	11.2	11.2	11.2	10.9	10.5	10.5	10.5	10.2	10.2	9.8	9.2
DATE	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14
TIME			0.0	0.6	0.5	0.5	8.2	8.2	8.2	8.0	7.9	7.4	7.5	6.9
0130 0300	9.2	9.0	8.8	8.6	8.5	8.5 8.6	8.2	8.2	0.2	8.0	7.9	7.5	7.3	6.9
0430						8.7						7.5		6.8
0600									8.2					6.7
0730		9.0		8.6					8.1	8.0	7.9			6.7
0900		8.9		8.7	8.5					7.9	7.8			6.8
1030 1200				8.7 8.8	8.6 8.6	8.7				7.9 7.8	7.7 7.6		7.5	6.7 6.8
1330				0.0	8.7	8.6				7.0	7.4		7.4	0.0
1500				8.8		8.5			8.1		7.3		7.3	6.8
1630				8.9		8.3			8.0				7.2	6.7
1800				8.9		8.1					7.0		7.2	
1930 2100		8.9 8.8		8.8	8.7						7.3 7.4		7.1 7.1	6.7
2230	9.2	0.0	8.8	8.6	8.6						7.4		7.0	0.0
2400	9.1	8.8	8.7	8.6	8.6	8.1	8.2	8.2	8.0	7.8	7.4	7.5	7.0	6.6
DATE	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28
TIME 0130	6.5	6.2	5.9	5.7	5.5	5.5	5.0	4.7	4.5	4.6	4.3	4.0	3.9	4.0
0300	0.5	6.2	3.9	3.7	3.3	5.4	5.0	4.7	4.5	4.0	4.3	4.0	3.9	4.0
0430		6.1				5.4	5.0			4.6	4.2			
0600						5.3	4.9		4.5	4.5				
0730								, -	4.6					4.0
0900 1030		6.1	5.9	5.7				4.7 4.6		4.5				3.9
1200	6.5	6.0	5.8	5.6				4.6		4.4	4.2	4.0		
1330	6.4	5.9	5.7	5.6				4.5			4.1	3.9		
1500	6.3			5.5		5.3								
1630	6.2		5.7			5.2	4.9							
1800 1930			5.8 5.8			5.2 5.1	4.8 4.7							
2100			5.7			٠. ـ	4.7				4.1			
2230						5.1					4.0		3.9	
2400	6.2	5.9	5.7	5.5	5.5	5.0	4.7	4.5	4.6	4.4	4.0	3.9	4.0	3.9

DATE	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11
0130 0300	3.9	4.1	3.7 3.6	3.4	3.3	3.3	3.3	2.8	2.8	1.9	1.7	1.6	1.7	1.4
0430 0600 0730 0900 1030 1200	3.9 4.0	4.1 4.0 4.0 3.9 3.9	3.0				3.2		2.8 2.6	1.8 1.7 1.6 1.5 1.5 1.4	1.5 1.5 1.6		1.7 1.6 1.5 1.5	
1330 1500 1630 1800 1930 2100		3.8		3.4			2.8		2.4 2.4 2.3 2.2 2.1 2.1	1.2 1.3 1.5 1.5 1.6	1.6 1.5 1.5 1.6	1.6 1.7 1.7 1.8		1.4 1.3 1.2 1.3
2230 2400	4.0	3.7 3.7	3.6 3.5	3.3	3.3	3.3	2.8	2.8	2.0	1.7 1.5	1.6	1.8 1.7	1.4	1.2
DATE	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25
0130 0300	1.2	1.1	1.3	1.5	1.4	1.5	1.5	1.6	1.8	1.8	2.1	1.8	1.4	1.4
0430 0600 0730 0900 1030	1.2	1.1 1.2				1.5	1.5 1.6 1.6 1.7	1.6	1.8	1.9 2.0 2.1		1.7 1.7 1.6	1.4 1.5	1.4 1.5
1200 1330 1500 1630 1800 1930	1.1	1.2 1.3	1.3	1.5		1.4	1.7 1.6 1.5 1.5	1.5 1.6 1.6 1.7	1.7 1.7 1.8		2.1 2.0 2.0 1.9	1.6 1.7 1.6 1.5	1.5	1.5 1.6 1.7
2100 2230 2400	1.0	1.3	1.4	1.4	1.4	1.4	1.4 1.5 1.5	1.8	1.8	2.1	1.9 1.8	1.5 1.4 1.4	1.4	1.8
DATE	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8
0130 0300 0430 0600	1.8	1.9	1.7	1.8 1.8 1.6	1.3	1.9 2.0 1.9	1.7	1.6	2.0	1.7	1.3	1.9 1.9 2.0	1.5 1.6 1.8 1.5	1.7 1.7 1.8
0730 0900 1030 1200 1330 1500 1630	1.9	1.8	1.7 1.8	1.5 1.4 1.4 1.3	1.3 1.4 1.5	1.6 1.5	1.7 1.6	1.6 1.7	2.0 1.9 1.9 1.8 1.7	1.7 1.6	1.3 1.4 1.4 1.3	2.0 1.9 1.8 1.7	1.5 1.6 1.7 1.6	1.8 1.7
1800 1930 2100 2230		1.8	1.9 1.9 1.8		1.5 1.6 1.7 1.8	1.5 1.6		1.8	1.6 1.5 1.6 1.7	1.6 1.4 1.3	1.3 1.4 1.5 1.6	1.5	1.6 1.7	1.7 1.6
2400	1.9	1.7	1.8	1.3	1.9	1.6	1.6	1.9	1.7	1.3	1.7	1.5	1.7	1.6

DATE	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22
0130 0300 0430	1.6	1.9	1.8	1.7	1.5	1.3 1.2	1.3	1.3	1.5	1.5 1.4	1.4	1.3 1.4	1.5	1.2
0600 0730 0900				1.7 1.6				1.4 1.5 1.4	1.4		1.3 1.2		1.5 1.4	1.2 1.1
1030 1200 1330	1.6 1.7		1.8 1.7	1.6 1.5				1.4 1.5	1.5					
1500 1630 1800 1930	1.7 1.8		1.7 1.6 1.7	1.5 1.6 1.6		1.2		1.5 1.6 1.7 1.6	1.5 1.6		1.2 1.3		1.4 1.3	1.1 1.2
2100 2230 2400	1.8	1.9	1.7	1.5	1.5 1.4	1.3	1.3	1.6	1.6	1.4	1.3	1.4 1.5 1.5	1.3 1.2 1.2	1.2
DATE	2-23	2-24	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7
TIME 0130	1.2	1.0	1.0	1.0	. ,									
0300 0430 0600	1.2	1.3	1.0 1.0 1.1	1.2	1.4	1.5 1.6	1.7 1.7 1.8	1.7 1.7 1.8	1.4 1.4 1.3	1.4 1.4 1.3 1.2	1.2	1.3	1.3	1.2
0730	1.2								1.2	1.2			1.3	
0900 1030	1.3	1.3		1.2 1.3					$\frac{1.1}{1.2}$				1.2	
1200 1330		1.2			1.4				1.2					
1500					1.5				1.1					
1630 1800		1.2 1.1					1.0	1.8	1.1					
1930		1.0					1.8 1.7	1.7 1.7	1.2 1.4		1.2			
2100 2230				1.3 1.4		1.6 1.8		1.6 1.6			1.3			
2400	1.3	1.0	1.1	1.4	1.5	1.7	1.7	1.5	1.4	1.2	1.3	1.3	1.2	1.1
DATE	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21
TIME 0130 0300 0430	1.1	1.1	1.1	1.1	1.2	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.1	1.1
0600 0730 0900	1.1 1.0									1.2 1.3				1.2
1030 1200 1330														
1500 1630 1800				1.1 1.2						1.3 1.2				
1930 2100	1.0				1.2 1.3							1.2 1.1		
2230 2400	1.1	1.1	1.1	1.2	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.1	1.1	1.2

LAKE MICHIGAN, STATION 4, 30 m continued.

DATE	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4
TIME 0130 0300 0430 0600 0730 0900 1030	1.2	1.2	1.2 1.2 1.3 1.3 1.4 1.5	1.6 1.6 1.7	1.8 1.7	1.8	1.7 1.6 1.6	1.4	1.4 1.3 1.3 1.4	1.4	1.6	1.7 1.6 1.5 1.4 1.3 1.3	1.1 1.1 1.2	1.2
1200 1330 1500 1630			1.6	1.8	1.0		1.7 1.6 1.5 1.4			1.4		1.1		
1800 1930 2100 2230										1.5 1.6	1.6 1.7			
2400	1.2	1.2	1.6	1.8	1.8	1.8	1.4	1.4	1.4	1.6	1.7	1.1	1.2	1.3
DATE	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18
TIME 0130 0300 0430	1.2	1.2	1.3	1.3	1.3 1.4	1.5	1.7							
0600 0730 0900						1.5 1.6	1.7							
1030 1200 1330		1.2		1.3 1.4		1.6	Data Ends.							
1500 1630		1.3				1.7								
1800 1930 2100				1.4	1.4 1.5									
2230 2400	1.2	1.3	1.3	1.3 1.3	1.5	1.7								

LAKE MICHIGAN - STATION 5. Depth 10 m. Start 25 November 1963, 0900 CST; end 12 April 1964, 1440 CST. Instrument serial no. 326, film record 20,024. Initial cal. 0.3°C; final cal. 0.7°C.

DATE	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8
0130 0300 0430		10.8	10.7	10.5	10.3 10.3 10.2	10.0 9.8 9.3	8.8 8.8 8.9	9.0	8.9 8.9 8.8	8.9	8.9 8.9 8.8	8.3 8.3 8.2	8.3	8.1
0600 0730 0900 1030		10.8 10.7	10.6	10.5 10.4	10.2 10.1	9.2 9.1 9.0 8.9	9.0		8.7 8.8 8.8	8.9 8.8	8.8 8.7 8.6 8.5	8.2	8.2	
1200 1330 1500 1630	10.7 10.8		10.6 10.5	10.4	10.1	8.9 8.8	9.0 9.1		8.9	8.8 8.9		8.3		8.1 8.0
1800 1930 2100 2230	10.0	10.7	10.5	10.3	10.0	0.0	9.1	9.0			8.5 8.4	0.2	8.2	0.0
2400 DATE	10.8 12-9	10.7	10.5 12-11	10.3	10.0	8.8 12-14	9.0 12-15	8.9 12-16	8.9 12-17	8.9 12-18	8.4 12-19	8.3 12-20	8.1 12-21	8.0 12-22
TIME														
0130 0300	8.0 7.9	7.5	7.8	7.7	7.1 7.0	7.1	6.9	6.1	5.9	5.9	5.7	5.3	5.2	5.1 5.1
0430	7.9					7.1								5.0
0600 0730	7.8	7.5 7.6	7.8			7.0	6.9				5.7		5.2 5.1	
0900		7.0	7.7		7.0		6.7				5.6		J.1	
1030	7.8				7.1		6.6	6.1		5.9	5.5			
1200	7.7			7.7			6.3	6.0		5.8	5.4			
1330 1500	7.7	7.6 7.7		7.6 7.6			6.1			5.8		5.3		
1630	7.6	7.8		7.5				6.0		5.7		5.2		
1800	,,,	,,,		7.4				5.9		3.,		3.2		
1930				7.3										
2100 2230				7.3 7.2		7.0					5.4			
2400	7.6	7.8	7.7	7.1	7.1	6.9 6.9	6.1	5.9	5.9	5.7	5.3 5.3	5.2	5.1	5.0
DATE		12-24			12-27		12-29	12-30		1-1	1-2	1-3	1-4	1-5
TIME														
0130	5.0	4.9	4.6	4.6	4.6	4.4	4.3	4.2	4.2	4.0	4.0	4.0	4.0	4.0
0430 0600					4.6 4.5									
0730														
0900						4.4								
1030 1200		4.9	4.6 4.5		4.5 4.4	4.3								
1330		4.8	4.5		4.4		4.3							
1500			4.6				4.2		4.2					
1630		4.8							4.1					
1800 1930		4.7 4.7												
2100	5.0	4.6												
2230	4.9								4.1					
2400	4.9	4.6	4.6	4.6	4.4	4.3	4.2	4.2	4.0	4.0	4.0	4.0	4.0	4.0

DATE	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19
TIME 0130 0300 0430	4.0	4.0	4.0	4.0	3.9	3.9	3.8	3.3 3.3 3.2	3.1 3.0 3.0	2.2 2.3 2.4	2.8	2.8	2.8	2.7
0600 0730 0900 1030									2.7 2.5 2.3 1.9	2.5	2.8 2.9		2.8	2.7
1200 1330 1500 1630 1800						3.9	3.8 3.7 3.7 3.6	3.2 3.1	1.6 1.5 1.6 1.8 1.9	2.6 2.7	2.9			
1930 2100 2230 2400	4.0	4.0	4.0	4.0 3.9 3.9	3.9	3.8	3.5 3.4 3.3 3.3	3.1	2.0 2.0 2.1 2.2	2.7 2.8 2.8	2.8	2.8	2.7	2.6
DATE	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2
0130 0300 0430	2.6	2.6	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.8
0600 0730 0900 1030 1200		2.6 2.7				2.8 2.7								
1330 1500 1630 1800 1930 2100		2.7 2.8				2.7 2.8 2.9						2.9		2.8 2.9
2230 2400	2.6	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.8	2.9
DATE	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16
0130 0300 0430 0600 0730 0900 1030	2.9	2.9	2.9	2.9	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.7	2.7
1200 1330 1500 1630 1800 1930 2100 2230				2.9				2.8						
2400	2.9	2.9	2.9	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7

DATE	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	2-29	3-1
TIME 0130	2.7	2.6	2.7	2.4	2.4	2.3	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3
0300 0430 0600 0730 0900		2.6 2.7	2.7	2.4 2.3	2.4					2.4				
1030 1200 1330 1500			2.6 2.5	2.3		2.3 2.4				2.5				
1630 1800 1930 2100 2230	2.7		2.5 2.4											
2400	2.6	2.7	2.4	2.4	2.3	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3
DATE	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15
0130 0300 0430	2.3	2.3	2.4	2.4	2.4	2.6	2.6	2.5	2.4	2.3 2.3 2.2	2.1	2.1	2.1	2.1
0600 0730 0900 1030		2.3					2.6	2.5		2.2		2.1 2.0		
1200 1330 1500		2.4			2.4 2.5		2.5		2.4	2.1				2.1
1630 1800 1930					2.5							2.0		
2100 2230					2.6									
2400 DATE	2.3 3-16	2.4 3-17	2.4 3-18	2.4 3-19	2.6 3-20	2.6 3-21	2.5 3-22	2.4 3-23	2.3 3-24	2.1 3-25	2.1 3-26	2.1 3-27	2.1 3-28	2.2 3-29
0130 0300 0430	2.2	2.1	2.2	2,2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2,1	2.1	2,2
0600 0730 0900 1030 1200	2,2	2.1 2.2											2.1	
1330 1500 1630 1800 1930 2100	2.1					2.2 2.1								
2230 2400	2.1	2.2	2.2	2,2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2

LAKE MICHIGAN, STATION 5, 10 m continued.

DATE	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12
TIME														
0130	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.4	2.5
0300														
0430														
0600														
0730														
0900														
1030													2.4	
1200													2.5	
1330														
1500														
1630								2.2						2.5
1800								2.3						
1930											2.3			Removed
2100											2.4			at 1700
2230														CST
2400	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.4	2.5	

LAKE MICHIGAN - STATION 5. Depth 15 m.

Start 25 November 1963, 0900 CST; end 12 April 1964, 1440 CST.
Instrument serial no. 149, film record 20,025. Initial cal. 0.3°C; final cal. 0.0°C.

DATE	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8
TIME														
0130		10.5	10.5	10.5	10.4	10.2	9.0	9.0	9.0	9.0	8.9	8.9	8.8	8.6
0300						10.0								
0430						9.8								8.6
0600				10.5		9.6						8.9		8.5
0730				10.4		9.4						8.8		
0900						9.2								
1030	10.4				10.4	9.1								
1200	10.5				10.3	9.0								
1330														8.5
1500														8.4
1630														
1800													8.8	8.4
1930					10.3								8.7	8.3
2100					10.2					9.0			8.7	8.3
2230										8.9			8.6	8.2
2400	10.5	10.5	10.5	10.4	10.2	9.0	9.0	9.0	9.0	8.9	8.9	8.8	8.6	8.2

LAKE MICHIGAN, STATION 5, 15 m continued.

DATE TIME	12-9	12-10	12-11	12-12	12-13	12-14	1215	12-16	12-17	12-18	12-19	12-20	12-21	12-22
0130	8.2	7.9	7.9	7.9	7.4	7.4	7.2	6.6	6.0	6.0	6.0	5.5	5.3	5.2
0300	8.2						7.2							
0430	8.1						7.1				6.0 5.9	5.5 5.4		
0600 0730	8.1					7.4	7.1	6.6			5.8	3.4		
0900	8.0					7.3	7.0	6.5			5.7		5.3	
1030							6.9	6.4					5.2	
1200							6.8	6.3						5.2
1330							6.7	6.2			5.7			5.1
1500 1630							6.6	6.1 6.0			5.6			
1800	8.0							0.0						
1930	7.9			7.9		7.3						5.4		
2100				7.8		7.2					5.6	5.3		
2230				7.6							5.5			
2400	7.9	7.9	7.9	7.5	7.4	7.2	6.6	6.0	6.0	6.0	5.5	5.3	5.2	5.1
DATE	12-23	12-24	12-25	12-26	12-27	12-28	1229	12-30	12-31	1-1	1-2	1-3	1-4	1-5
TIME 0130	5.1	5.0	5.0	4.9	4.9	4.9	4.8	4.7	4.7	4.2	4.2	4.3	4.3	4.3
0300	J. I	3.0	3.0	7.7	7.0	7.,	.,,					,,,		
0430										4.2	4.2			
0600										4.3	4.3			
0730			5.0				, ,		4.7					
0900 1030			4.9				4.8 4.7		4.6					
1200							4.7		4.6					4.3
1330						4.9			4.5					4.2
1500						4.8							4.3	
1630									4.5	4.3	4.3		4.2	
1800	5.1								4.4	4.2	4.2			
1930 2100	5.0								4.3					
2230									4.3					
2400	5.0	5.0	4.9	4.9	4.9	4.8	4.7	4.7	4.2	4.2	4.2	4.3	4.2	4.2
DATE	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19
TIME 0130	4.2	4.2	4.1	4.1	4.1	4.0	4.0	3.9	3.2	2,1	2.6	2.7	2.7	2.7
0300	4.2	4.2	4.1	4.1	4.1	4.0	4.0	3.9	3.1	2.2	2.0	2.7	2.7	2.7
0430									3.0	2.2				
0600					4.1			3.9	2.8	2.3	2.6			
0730					4.0			3.8	2.7	2.4	2.7			
0900								3.7	2.4					
1030 1200								3.7	1.9	2.4				
1330								3.6	1.8					
1500		4.2						3.5	1.9					
1630		4.1					4.0	3.5		2.4				2.7
1800							3.9	3.4		2.5				2.6
1930 2100									1.9					
2230								3.4	2.0	2.5				
2400	4.2	4.1	4.1	4.1	4.0	4.0	3.9	3.3	2.0	2.6	2.7	2.7	2.7	2.6

DATE	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2
TIME 0130	2.6	2.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.8
0300		2.0									2.0	2.0	2.0	2.0
0430 0600														
0730														
0900														
1030 1200														
1330										2.7				
1500 1630		2.6 2.7								2.8				
1800		2.7												
1930														
2100 2230														
2400	2.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.8
DATE	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16
TIME 0130	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.7	2.7
0300														
0430 0600														
0730														
0900 1030														
1200														
1330												2.8		
1500 1630												2.7		
1800														
1930 2100														
2230														
2400	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.7	2.7	2.7
DATE	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	2-29	3-1
0130	2.7	2.7	2.7	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.3
0300														
0430 0600													2.4	
0730				2.6						2.5			2.3	
0900 1030				2.5						2.4				
1200														
1330														
1500 1630														
1800														
1930 2100			2.7											
2230														
2400	2.7	2.7	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.3	2.3

DATE	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15
TIME 0130 0300 0430 0600	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2 2.2 2.1	2.0	2.0	2.0	2.0
0730 0900 1030 1200 1330 1500										2.1 2.0				2.0 2.1
1630 1800 1930 2100 2230									2.3					
2400	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.0	2.0	2.0	2.0	2.1
DATE	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29
0130 0300 0430 0600 0730 0900 1030	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
1200 1330 1500 1630 1800 1930 2100 2230		2.1 2.0												
2400	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
DATE	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12
0130 0300 0430 0600 0730 0900 1030	2,0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2
1200 1330 1500 1630 1800 1930 2100 2230					2.0 2.1						2.1 2.2			2.2 Data Ends.
2400	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	

LAKE MICHIGAN - STATION 5. Depth 22 m. Start 25 November 1963, 0900 CST; end 12 April 1964, 1440 CST. Instrument serial no. 330, film record 20,026. Initial cal. 0°C; final cal. idet.

DATI		25	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8
0130 0300)		10.2	10.1	10.1	10.0	9.7 9.6	8.5	8.7	8.4 8.5	8.5	8.5	8.4 8.4	8.3	8.0
0430)				10.1	10.0	9.5	8.5 8.6		0.5	8.5 8.4		8.3	8.3 8.2	
0730)				10.0	9.9	9.0	•••			8.3	8.5		0,2	
1030	10.					9.8	8.8					8.4			
1200 1330	10.						8.7 8.6		8.7		8.3 8.4				
1500 1630							8.6 8.5	8.6 8.7	8.6 8.6		8.5				
1800 1930)					9.8 9.7			8.5 8.4						
2100 2230)		10.2 10.1						0.4	8.5					8.0
2400		3	10.1	10.1	10.0	9.7	8.5	8.7	8.4	8.6 8.6	8.5	8.4	8.3	8.2 8.1	7.9 7.8
DATE		9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22
0130	7.	8	7.4	7.5	7.5	7.1	7.0	6.9	6.3	5.9	5.9	5.7	5.3	5.2	5.2
0300 0430	7.					7.0									
0600 0730)											5.7			
0900 1030								6.9 6.7				5.6 5.5			
1200 1330	7.	6						6.6	6.3		5.9 5.8	5.4			
1500	7.							6.3	6.1		5.7				
1630 1800)								6.0 6.0						
1930 2100					7.5 7.4		7.0		5.9						
2230 2400		4	7.4	7.5	7.3 7.2	7.0	6.9 6.8	6.3	5.9	5.9	5.7	5.4	5.3 5.2	5.2	5.2
DATE	12-				12-26				12-30		1-1	1-2	1-3	1-4	1-5
0130		2	5.0	4.7	4.7	4.7	4.6	4.6	4.6	4.6	4.4	4.4	4.4	4.4	4.3
0300		1													
0600	5.														
0900)	U			5.7										
1030 1200)				4.8					4.6					
1330 1500			5.0 4.9		4.8					4.5					
1630)		4.9		4.7	4.7 4.6									
1930)		4.8							4.5				4.4	
2230)			, -				, ,		4.4					
2400	5.	U	4.7	4.7	4.7	4.6	4.6	4.6	4.6	4.4	4.4	4.4	4.4	4.3	4.3

DATE	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19
0130 0300 0430 0600 0730 0900	4.3	4.2	4.2	4.2	4.1	4.0	4.0	4.0 4.0 3.9 3.8	3.5 3.5 3.4 3.3 3.1 2.9	2.3 2.4 2.5 2.5 2.6 2.6	2.7	2.8	2.7	2.7
1030 1200 1330 1500 1630 1800		4.2			4.1 4.0			3.7 3.6 3.6 3.6 3.5	2.7 2.4 2.1 1.9 1.9 2.0	2.7	2.7 2.8	2.0		
1930 2100 2230	4.3 4.2	4.1 4.2		4.2 4.1					2.0 2.1 2.2		2.7	2.8 2.7		
2400 DATE	4.2 1-20	4.2 1-21	4.2 1-22	4.1 1-23	4.0 1-24	4.0 1-25	4.0 1-26	3.5 1-27	2.3 1-28	2.7 1-29	2.7 1-30	2.7 1-31	2.7 2-1	2.7
TIME					2.7	2.7	2.7	2.7	2.7	2.7	2.8	2,9	2.7	2.7
0130 0300	2.7	2.7	2.7	2.7	2.7	2.7	2.1	2.7	2.1	2.7	2.8	2.9	2.7	2.1
0430 0600 0730				2.7 2.8						2.7 2.8	2.9			
0900 1030				2.8										
1200 1330				2.7										
1500 1630												2.9		
1800												2,0		
1930 2100														
2230 2400	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.8	2.9	2.8	2.7	2.7
DATE	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16
TIME 0130	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
0300 0430		2.7	2.7											
0600		2.8	2.0	2.7		2.7								
0730 0900				2.8		2.8								
1030 1200														
1330 1500			2.8											
1630			2.7			2.8								
1800 1930		2.8		2.8 2.7		2.7								
2100 2230														
2400	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7

DATE		2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	2-29	3-1
0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800	2.7	2.7	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6 2.6 2.5	2.5	2.5	2.5	2.5
2100 2230			2.6											
2400	2.7	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.5	2.5	2.5
DATE		3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15
0130 0300 0430 0600	2.5	2.6	2.6	2.6	2.5	2.6	2.6	2.6	2.6	2.5 2.4 2.4 2.3	2.2	2.1	2.2	2.3
0730				0.6	2.5					2.3				
0900 1030				2.6	2.6					2.2				
1200 1330 1500	2.6			2.5	2.6 2.7									
1630 1800 1930 2100 2230					2.7 2.6				2.6 2.5		2.2 2.1		2.2	
2400		2.6	2.6	2.5	2.6	2.6	2.6	2.6	2.5	2.2	2.1	2.1	2.3	2.3
DATE	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29
TIME 0130 0300 0430 0600 0730	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.4
0900 1030 1200 1330 1500 1630 1800 1930			2.3				2.4							
2100 2230 2400		2.3	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4

LAKE MICHIGAN, STATION 5, 22 m continued.

DATE	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12
TIME 0130	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.4	2.4	2.4	2.5	2.5	2.5
0300					2.3						2.5			
0430														
0600														
0730														
0900														
1030														2.5
1200														Removed
1330						2.3		2.3						from
1500						2.4		2.4						water a
1630														1100.
1800														11001
1930														
2100														
2230						_ ,								
2400	2.4	2.4	2.4	2.4	2.3	2.4	2.3	2.4	2.4	2.4	2.5	2.5	2.5	

LAKE MICHIGAN - STATION 5. Depth 30 m. Start 25 November 1963, 0900 CST; end 12 April 1964, 1440 CST.
Instrument serial no. 229, film record 20,027. Initial cal. 0°C; final cal. 0°C.

					,		,							
DATE	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8
TIME														
0130		9.1	9.0	8.9	8.8	8.4	7.5	7.5	7.1	7.1	7.1	7.0	7.0	6.8
0300		9.1				8.2		7.6		7.0	7.1			
0430		9.0				8.1					7.0			
0600					8.8	7.9								
0730			9.0		8.7	7.8								
0900			8.9			7.7								
1030	9.1					7.6		7.6						
1200						7.5		7.5						
1330								7.4						
1500								7.3		7.0				
1630								7.2		7.1				6.8
1800					8.7	7.5		7.2						6.7
1930					8.6	7.6		7.1						6.6
2100				8.9									7.0	6.5
2230				8.8						7.1			6.9	
2400	9.1	9.0	8.9	8.8	8.6	7.6	7.5	7.1	7.1	7.2	7.0	7.0	6.8	6.5

DATE	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22
TIME 0130	6.5	6.0	6.0	6.0	5.8	5.8	5.7	5.0	4.8	4.8	4.3	3.9	3.8	3.6
0300 0430	6.5 6.4						5.7				4.3		3.8 3.7	3.6
0600	6.3						5.6			4.8	4.2		3.6	3.5
0730 0900	6.2 6.1					5.8	5.5 5.4			4.7 4.7	4.1 4.0			3.4
1030	6.1					5.7	5.3			4.6				3.4
1200 1330	6.0						5.1	5.0		4.4 4.3				3.3
1500 1630								4.9						
1800				6.0				4.9						3.3
1930 2100				5.9 5.9			5.1	4.8			4.0	3.9 3.8		3.2
2230				5.8			5.0				3.9	3.0		
2400	6.0	6.0	6.0	5.8	5.8	5.7	5.0	4.8	4.8	4.3	3.9	3.8	3.6	3.2
DATE	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5
0130	3.2	3.1	3.0	3.0	3.0	2.9	2.9	2.9	2.9	2.8	2.8	2.8	2.8	2.8
0300 0430		3.1												
0600 0730	3.2 3.1	3.0												
0900	3.1													
1030 1200														
1330														
1500 1630					3.0 2.9									
1800														2.8
1930 2100									2.9					2.7
2230 2400	2 1	3.0	3.0	3.0	2.9	2.9	2.9	2.9	2.8 2.8	2.8	2.8	2.8	2.8	2.7
DATE	3.1 1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19
TIME														
0130 0300	2.7	2.7	2.7	2.7	2.5	2.4	2.3	2.2	2.0	1.0	1.2	1.2	1.1	1.1
0430				2.6					1.9	1.0				
0600 0730							2.3	2.2	1.6 1.3	1.0		1.2		
0900 1030						2.4	2.2	2.1	1.0			1.1		
1200						2.3			0.2					
1330 1500				2.6					0.0					
1630					2.5				0.1					
1800 1930					2.4				0.3					
2100 2230						2.3			0.7	1.1				
2400	2.7	2.7	2.7	2.5	2.4	2.2	2.2	2.1	0.9	1.2	1.2	1.1	1.1	1.1

DATE	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2
0130 0300	1.1	1.1	1.1	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
0430 0600 0730 0900 1030 1200 1330 1500			1.1		1.2									
1630 1800 1930 2100 2230														1.1 1.2
2400	1.1	1.1	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2
DATE	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16
0130 0300	1.2	1.2	1.2	1.2	1.2	1.1	1.2	1.1	1.1	1.0	1.0	1.1	1.1	1.1
0430 0600 0730 0900 1030 1200						1.1 1.2						1.1		
1200 1330 1500 1630 1800 1930 2100 2230					1.2		1.2 1.1		1.1 1.0		1.0 1.1			
2400	1.2	1.2	1.2	1.2	1.1	1.2	1.1	1.1	1.0	1.0	1.1	1.0	1.1	1.1
DATE TIME	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	2-29	3-1
0130 0300 0430	1.1	1.1	1.1	1.1	1.0	1.1	1.1	1.0	1.0	1.0	1.0	1.0	0.9	0.9
0600 0730 0900 1030 1200 1330 1500				1.1	1.0		1.1							
1630 1800 1930 2100												1.0 0.9		
2230 2400	1.1	1.1	1.1	1.0	1.1	1.1	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9

LAKE MICHIGAN, STATION 5, 30 m continued.

DATE	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15
0130	0.9	1.0	1.0	1.0	1.0	1.1	1.0	1.0	1.0	0.9	0.5	0.4	0.3	0.5
0300														0.6
0430										0.9				0.7
0600 0730	0.9 1.0					1.1 1.0				0.8		0.4		
0900	1.0					1.0				0.6		0.3		
1030											0.5			
1200											0.4			
1330 1500													0 0	
1630					1.0								0.3	
1800					1.1					0.6			0.4	
1930										0.5				
2100 2230									1.0					
2400	1.0	1.0	1.0	1.0	1.1	1.0	1.0	1.0	0.9	0.5	0.4	0.3	0.4	0.7
DATE	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29
0130	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.8	0.8	0.8	0.7	0.6	0.6	0.7
0300														
0430 0600							0.7							
0730							0.7							0.7
0900							0.0							0.8
1030														
1200										0.8				
1330 1500										0.7			0.6	
1630					0.8						0.7		0.7	
1800					0.7						0.6			
1930														
2100 2230														
2400	0.8	0.8	0.8	0.8	0.7	0.7	0.8	0.8	0.8	0.7	0.6	0.6	0.7	0.8
DATE	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12
TIME	3 30	3 31		7.2	7 3					7.0	7-7	4-10	4-11	4-12
0130	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	0.9	1.0	1.0
0300 04 3 0														
0600												0.9		
0730		0.8										1.0		
0900		0.9												
1030 1200														
1330														1.0
1500											1.0			Ends at
1630								0.9			0.9			1400 CST
1800								1.0						_,00 001
1930 2100														
2230														
2400	0.8	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	0.9	1.0	1.0	

LAKE MICHIGAN - STATION 5. Depth 60 m.
Start 25 November 1963, 0900 CST; end 12 April 1964, 1440 CST.
Instrument serial no. 273, film record 20,028. Initial cal. 0.4°C; final cal. -0.2°C.

DATE	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8
TIME 0130		4.5	4.4	4.4	4.4	4.5	4.6	4.7	4.6	4.7	4.8	4.5	5.3	5.1
0300 0430								4.7 4.8			4.8 4.7		5.3	5.0 4.9
0600						4.5		4.8		4.7	4.6	4.5	5.2	4.3
0730						4.6		4.7		4.8	4.0	4.6	3,1	
0900	4.5									4.8				4.9
1030								4.7		4.7		4.6	5.2	4.8
1200								4.6		4.6		5.0	5.3	4.8
1330		4.5								4.6	4.6 4.5	5.1 4.9	5.4 5.4	4.6 4.5
1500 1630		4.4								4.7	4.5	4.6	6.7	4.4
1800									4.6	4.8		4.6	5.7	
1930									4.7			4.8	5.6	
2100					4.4							5.0	5.6	
2230					4.5	, ,				, ,		5.3	5.1	
2400	4.5	4.4	4.4	4.4	4.5	4.6	4.6	4.6	4.7	4.8	4.5	5.8	5.1	4.4
DATE	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22
0130	4.4	4.5	4.4	4.6	5.2	4.9	6.9	6.8	5.4	6.3	6.2	5.6	5.6	5.2
0300					5.2	4.9			5.5	6.4			5.6	
0430					5.9	5.0			5.6		6.2		5.5	
0600 0730					5.4 5.0	5.0 5.4		6.8 6.7	5.6 5.8	6.4	6.1		5.4 5.4	
0900			4.4	4.6	4.9	6.4		0.7	6.0	6.3		5.6	5.3	
1030			4.5	4.7	4.7	•••		6.7	6.2	0.5		5.5	5.2	
1200					4.6			6.5	6.3	6.3				
1330	4.4					6.4		6.2		6.2				
1500	4.5					6.6		6.2				5.5		
1630				, 7		6.7 6.8		6.1	6.3		6.1 5.9	5.6		
1800 1930				4.7 4.8	4.6	6.9	6.9 6.7	6.0 5.9	6.4		5.7			
2100		4.5		4.8	4.7	0.5	0.7	5.9		6.2	5.7			
2230		4.4		5.0				5.7		6.3	5.6			
2400	4.5	4.4	4.5	5.0	4.7	6.9	6.7	5.5	6.4	6.3	5.6	5.6	5.2	5.2
DATE	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5
TIME 0130	5.2	5.1	4.7	4.7	4.4	4.4	4.2	4.2	4.0	3.8	3.8	3.8	3.7	3.7
0300						4.3						•••		
0430								4.2						
0600			4.7					4.1						
0730			4.7						4.0					
0900 1030		5.1	4.6 4.7	4.7					3.9					
1200		5.0	4.7	4.6		4.3						3.8		
1330	5.2	5.0		4.5		4.2						3.7		
1500	5.1	5.0			4.4									
1630		4.9		4.5	4.3			4.1						
1800		4.8		4.6				4.0	3.9					
1930 2100		4.7							3.8					
2230					4.3									
2400	5.1	4.7	4.7	4.6	4.4	4.2	4.2	4.0	3.8	3.8	3.8	3.7	3.7	3.7

			•	•										
DATE	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19
TIME 0130 0300	3.7	3.8	3.8	3.7	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
0430														
0600 0730														
0900														
1030				2 7										
1200 1330				3.7 3.6										
1500														
1630 1800				3.6										
1930				3.5										
2100 2230														
2400	3.7	3.8	3.8	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
DATE	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2
TIME 0130	3.5	3.3	3.4	3.3	3.1	3.0	1.3	2.1	2.3	2.4	2.3	2.3	2.3	2.2
0300		3,3	٠, ١	5,5	3,1		1.5					2.0	2.5	2
0430 0600	3.5 3.4						1.6 1.7		2.3					
0730	3.4						1.7		4.4					
0900			3.4			3.0	1.8							
1030 1200			3.3			2.9	1.9	2.1					2.3	
1330				3.3	3.1	2.9								
1500 1630	3.4			3.2	3.0	2.6	1.9							
1800	3.3					2.2	2.0							
1930 2100					3.0	1.8 1.4	2.0	2.2						
2230					2.9	1.3	2.1	2.5						
2400	3.3	3.3	3.3	3.2	2.9	1.3	2.1	2.3	2.4	2.4	2.3	2.3	2.2	2.2
DATE	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16
0130	2.2	2.4	2.4	2.4	2.4	2.2	2.3	2.4	2.4	2.5	2.5	2.5	2.5	2.4
0300														
0430 0600	2.2					2.2								
0730						2.3								
0900 1030	2.3				2.4	2.3								2.4
1200					2.0	2.4								
1330 1500														
1630													2.5	
1800 1930					2.3								2.4	
2100					2.2	2.4								
2230	2 /	2 /	2 /	2 4	2 2	2.3	2 2	2 4	2.4	2 5	2.5	2.5	2.4	2 2
2400	2.4	2.4	2.4	2.4	2.2	2.3	2.3	2.4	2.5	2.5	2.5	2.5	2.4	2.3

DATE	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	2-29	3-1
TIME 0130 0300	2.3	2.4	2.5	2.5	2.5	2.5	2.5	2.4	2.3	2.3	2.3	2.2	2.2	2.1
0430 0600 0730 0900		2.4 2.5					2.5 2.4	2,4			2.3			
1030 1200 1330 1500 1630								2.3					2.2 2.1	2.1 2.0
1800 1930 2100 2230	2.3													
2400	2.4	2.5	2.5	2.5	2.5	2.5	2.4	2.3	2.3	2.3	2.2	2.2	2.1	2.0
DATE TIME	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15
0130 0300	2.0	1.6	1.5	1.5	1.5	1.6	1.8	1.7	1.9	1.9	1.9	1.9	1.9	1.8
0430 0600 0730 0900		1.6 1.5				1.6 1.7		1.7 1.8					1.9 1.8	
1030 1200 1330 1500 1630 1800	2.0 1.8 1.7 1.6					1.7 1.8								
1930 2100 2230	1.6						1.8 1.7	1.8						
2400 DATE	1.6 3-16	1.5 3-17	1.5 3-18	1.5 3-19	1.5 3-20	1.8 3-21	1.7 3-22	1.9	1.9 3-24	1.9 3-25	1.9 3-26	1.9 3-27	1.8 3-28	1.8 3-29
TIME 0130 0300 0430	1.8	1.8	1.7	1.7	1.8	1.6	1.6	1.7	1.9	1.9	1.9	1.9	1.9	1.9 1.9 2.0
0600 0730 0900					1.8 1.7			1.7 1.8						
1030 1200 1330 1500 1630		1.8 1.7					1.6 1.7							2.0
1800 1930 2100				1.7 1.8	1.7									
2230 2400	1.8	1.7	1.7	1.8	1.6 1.6	1.6	1.7	1.8	1.9	1.9	1.9	1.9	1.9	2.1

LAKE MICHIGAN, STATION 5, 60 m continued.

DATE	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12
TIME														
0130	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.2	2.3	2.3	
0300														
0430														
0600														
0730														
0900														
1030														
1200		2.1												
1330		2.0											2.3	
1500								2.0						
1630								2.1					End	
1800														
1930														
2100											2.2			
2230								2.1			2.3			
2400	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.2	2.3	2.3		

LAKE MICHIGAN - STATION 7. Depth 10 m.
Start 18 November 1963, 0800 CST; end 2 April 1964, 0900 CST.
Instrument serial no. 344, film record 20,035. Initial cal. 0°C; final cal. indet.

DATE	11-18	11-19	11-20	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28	11-29	11-30	12-1
TIME														
0130		9.7	9.5	10.1	10.3	9.5	8.6	8.5	9.3	8.6	8.3	8.2	8.5	7.3
0300			9.5	10.2		9.3				8.5		8.5	8.6	
0430			9.8			9.2	8.6			8.4		8.6		
0600			10.1			9.1	8.5			8.3		8.4	8.6	
0730		9.7	10.3			9.0	8.6					8.3	8.5	
0900	10.1	9.6				8.9	8.7	8.5	9.3			8.5		
1030	10.2		10.3		10.3		8.7	8.4	9.2			8.5		
1200	10.2	9.6	10.2		10.2		8.8	8.4				8.4		
1330	10.1	9.7			10.1		8.7	8.5	9.2	8.3		8.5	8.5	
1500	10.0	9.7			10.0	8.9	8.6	8.9	9.1	8.4		8.5	8.3	
1630	9.8	9.8		10.2	9.8	9.0		9.1		8.5		8.6	8.1	
1800	9.8	9.7	10.2	10.3	9.9		8.6	9.1	9.1	8.4		8.4	7.7	7.3
1930	9.7	9.6	10.3		10.0	9.0	8.5	9.2	9.2	8.4		8.6	7.5	7.2
2100			10.1		10.0	8.9		9.3		8.3		8.5	7.4	7.1
2230			10.0		9.9	8.8			9.2		8.3	8.4		
2400	9.7	9.6	10.1	10.3	9.7	8.7	8.5	9.3	8.9	8.3	8.2	8.5	7.4	6.9

DATE	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15
0130	7.0	7.0	6.9	7.1	6.6	6.3	6.2	6.3	5.6	6.0	5.3	5.2	4.7	4.3
0300	7.1	7.0	6.9	7.0	0.0	0.5	0.2	6.2	5.5	5.9	5.3	5.3	4.4	4.2
0430	7.2	6.7	7.0	,			6.2	6.2	5.5	5.9	5.4	5.1	4.4	4.0
0600	7.1						6.1	6.1	5.7	5.8	5.5	4.6	4.3	3.7
0730	,	6.7			6.6		5.9	6.1	5.7	5.9	5.4	4.8	4.1	3.7
0900		6.8	7.0		6.2		5.5	6.0	5.9	6.0		4.9	4.5	3.9
1030		6.9	7.1	7.0	5.8		5.5	5.9	6.1	6.0			4.5	4.3
1200	7.1	6.9		6.9	5.7	6.3	5.6	5.7	6.1	5.8	5.4	4.9	4.2	3.4
1330	7.0	6.8			5.7	6.2	5.8	5.9	6.2	5.6	5.5	4.7	4.2	3.4
1500				6.9	5.8	6.1	5.9	6.0	6.1	5.1		4.8	4.4	3.9
1630		6.8		6.8	6.0	6.2		6.1	6.0	5.0		5.1	4.3	3.5
1800		6.7			6.1	6.1	5.9	5.8	6.0	5.0		4.5		3.5
1930		6.8		6.8		6.2	6.0	5.6	6.1	5.1		4.3		3.4
2100		6.9		6.7	6.1		6.1	5.6		5.2	5.5			3.3
2230				6.7	6.2		6.2	5.8		5.2	5.4	4.3		3.3
2400	7.0	6.9	7.1	6.6	6.3	6.2	6.2	5.9	6.1	5.1	5.3	4.5	4.3	3.4
DATE	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
TIME		0.5	0.6	0.0		0.7	0 0	0 0	0.0	0.0	0.5	1.	7 0	0.6
0130	3.4	2.3	2.6	2.2	1.1	0.4	0.3		. 0.9	0.8	0.5	1.6	1.3	0.6
0300	3.3	2.2	2.7		0.6			0.5	0.0	0.0	0.5	1.5	1.3	0.6
0430	3.2	2.2	2.8		0.5				0.9	0.8	0.6		1.2	0.5
0600	3.1	2.3			0.4				0.8	0.7	0.6			
0730 0900	3.0	2.5			0.4			0.5		0.7	0.6		1.2	0.5
	2.9	2.4	2.0	2.2		0 /								0.4
1030	2.8	2.7	2.8	2.2	0.5	0.4	0.2	0.3		0.6	0.9 1.1		1.0	0.4
1200 1330	2.8	3.2	2.6 2.4	2.1 2.1	0.6	0.3	0.3	0.4	0.8	0.5	1.3		0.0	0.4
1500		2.4	2.2	1.9	0.6		0.2	0.5	0.9	0.4	1.5			0.5
1630	2.6	2.4	2.1	1.7	0.5			0.6	0.9	0.4	1.0	1.5	0.8	
1800	2.5	2.3	2.1	1.4	0.5			0.5		0.3	1.5	1.4	0.7	
1930		2.4		1.3				0.5		0.4	1.6	1.4	0.6	
2100		2.5		1.4	0.5			0.6	0.9	0.4	1.0	1.3	0.0	
2230	2.5	2.5		1.5	0.4			0.7	0.8		1.6	1.5		
2400	2.4	2.6	2.1	1.4	0.4	0.3	0.2	0.9	0.7	0.4	1.7	1.3	0.6	0.3
DATE	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
0130	0.3	0.2	0.3	0.5	0.3	1.3	1.0	1.1	1.2	1.2	1.3	1.3	0.3	0.3
0300	0.5	0.1	0.4	0.5	0.5	1.2	1.0		1.1		1.5	1.5	0.5	0.4
0430		0.1	0.3	0.5	0.3		0.9					1.3		0.8
0600			0.4	0.4	0.5		0.5					1.2	0.3	0.9
0730			•••	•••	0.7	1.2				1.2		1.2	0.2	1.0
0900			0.4		0.9	1.3		1.1		1.3		1.1	0.1	2.0
1030			0.5		1.0	1.2		1.2		1.0		1.1	0.1	1.0
1200			0.5		1.0	1.2			1.1			1.0		1.2
1330			0.6		1.1	1.1			1.0			1.0		1.3
1500	0.3		0.7		1.2							0.9		1.3
1630	0.2		0.8	0.4					1.0			0.9		1.4
1800		0.1	0.9	0.3	1.2		0.9	1.2	1.1			0.8		
1930		0.2	0.8		1.3		1.0	1.3	1.2			0.7		
2100		0.2	0.7				1.1					0.7		
2230		0.3	0.6									0.6	0.1	
2400	0.2	0.3	0.5	0.3	0.3	1.1	1.1	1.3	1.2	1.3	1.3	0.5	0.2	1.4

DATE	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26
TIME 0130 0300 0430 0600	1.4 1.4 1.5	1.1 1.0 0.9	0.8	0.8	0.4	0.5	0.3 0.3 0.4 0.5	0.6	0.6 0.5	0.6	0.6	1.2 1.1	0.3	0.1 0.1 0.2 0.3
0730 0900 1030 1200 1330	1.5 1.4 1.3	0.9 0.8			0.4 0.5	0.5			0.5 0.6		0.6 0.7 0.8 0.8	1.1 1.0 0.9 0.8 0.7		0.3
1500 1630 1800 1930 2100	1.3 1.2 1.2			0.8 0.7 0.6	0.5	0.4	0.5		0.6 0.7	0.6 0.5	1.0	0.6 0.6 0.5 0.5		
2230 2400	1.0 1.1	0.8	0.8	0.5 0.5	0.4	0.4	0.6	0.6	0.7	0.6	1.1 1.2	0.4	0.3	0.3
DATE	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
0130 0300 0430 0600 0730	0.3 0.2 0.1 0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4 0.4 0.5	0.4	0.3	0.2 0.3 0.3 0.2	0.1
0900 1030 1200 1330	0.0				0.2					0.5 0.4 0.4 0.3	0.5		0.2	0.1
1500 1630 1800 1930 2100		0.1 0.2								0.3	0.4	0.3		0.2
2230 2400	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.2	0.1	0.2
DATE	2-10	2-11	2-12	2-13	2-14	2~15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23
TIME 0130 0300 0430 0600 0730	0.2 0.2 0.3	0.2 0.2 0.3	0.3	0.3	0.3	0.3 0.3 0.4 0.5 0.6	0.5	0.3	0.4 0.5 0.6	0.4 0.6 0.7 0.8 0.8	0.7 0.8 0.9 0.8 0.9	1.1	0.6	0.9 0.8 0.8 0.7 0.7
0900 1030 1200 1330 1500		3.0				0.5	0.5 0.4 0.3		0.6 0.5 0.4 0.4 0.3	0.9		1.1 1.0 0.9	0.6 0.8	0.6 0.6 0.5 0.5
1630 1800 1930 2100 2230	0.3 0.2							0.3		0.9	0.9 1.0 1.1	0.9 0.8 0.8 0.7	0.8 0.9	0.4
2400	0.2	0.3	0.3	0.3	0.3	0.5	0.3	0.4	0.3	0.7	1.1	0.6	0.9	0.3

DATE	2-24	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8
TIME	0 0													
0130	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.7	0.6	0.6	0.7	0.9	1.0	1.2
0300		0.4				0.5		0.6	0.6		0.8			
0430									0.5					
0600								0.6						
0730		0.4					0.4	0.5					1.0	
0900		0.3					0.5	0.5					1.1	
1030					0.3		0.6	0.6	0.5		0.8			
1200					0.4				0.6		0.9			
1330			0.3								1.0	0.9	1.1	
1500			0.4				0.6			0.6	1.1	1.0	1.2	
1630							0.7			0.7	1.0		1.1	1.2
1800													1.2	1.3
1930			0.4			0.5								
2100			0.3			0.4	0.7							
2230						0.5	0.6							
2400	0.3	0.3	0.3	0.3	0.4	0.4	0.6	0.6	0.6	0.7	1.0	1.0	1.2	1.3
DATE	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
TIME												J 20	3-21	J-22
0130	1.3	1.1	1.2	1.3	1.4	1.3	1.3	1.8	2.0	1.5	1.8	1.8	1.8	2.1
0300								1.8				1.8		
0430	1.3				1.4			1.9		1.5	1.8	1.9		
0600	1.2				1.3		1.3	2.0		1.6	1.7			
0730	1.3						1.4	2.1	2.0		1.7			
0900				1.3		1.3	1.3	2.3	1.9		1.8	1.9		
1030		1.1		1.4		1.4		2.2	1.8	1.6		2.0		
1200		1.2					1.3	2.2	1.7	1.7		2.1	1.8	
1330							1.4	2.3	1.6				1.9	
1500	1.3							2.2	1.6				2.0	
1630	1.2						1.4		1.5			2.1	2.1	2.1
1800				1.4			1.5					2.0		2.2
1930				1.3				2.2		1.7		1.9		2.1
2100				1.4		1.4	1.5	2.1		1.8		1.9		
2230				1.3		1.3	1.6					1.8		
2400	1.2	1.2	1.2	1.4	1.3	1.3	1.7	2.1	1.5	1.8	1.8	1.8	2.1	2.1
DATE	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5
TIME											4-2	4-3	4-4	4-3
0130	2.1	2.2	2.2	2.0	1.7	1.7	1.6	1.3	1.3	1.5	1.5			
0300				1.9	1.7		1.5							
0430				1.9	1.6									
0600				1.8							1.5			
0730						1.7								
0900						1.8	1.5	1.3			End o			
1030							1.6	1.4		1.5	recor	d.		
1200			2.2							1.6				
1330	2.1		2.3							1.5				
1500	2.2		2.3											
1630			2.1			1.8	1.6							
1800			2.0			1.7	1.5							
1930			2.0			1.6	1.5	1.4	1.3					
2100			2.1				1.4	1.3	1.4					
2230			2.2				1.4		1.4					
2400	2.2	2.2	2.1	1.8	1.6	1.6	1.3	1.3	1.5	1.5				

LAKE MICHIGAN - STATION 7. Depth 15 m.
Start 18 November 1963, 0800 CST; end 2 April 1964, 0900 CST.
Instrument serial no. 236, film record 20,036. Initial cal. 0.2°C; final cal. 0°C.

DATE	11-18	11-19	11-20	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28	11-29	11-30	12-1
0130		9.5	9.4	10.2	10.3	9.4	9.0	8.7	9.2	9.2	8.5	8.2	8.4	7.6
0300			9.5			9.2			9.3	9.2			8.3	7.5
0430									9.4	8.2			8.2	7.3
0600				10.2						8.4				7.4
0730			9.5	10.0		9.2		8.7		8.5	8.5	8.2		7.3
0900	9.4	9.5	9.7	10.1		9.1	9.0	8.8			8.4	8.3	8.2	7.2
1030	9.4	9.6	9.9	10.2			8.9	8.8			8.2	8.5	8.4	
1200	9.6		10.2	10.3			8.7	8.7	9.4			8.4	8.4	
1330	9.7	9.6	10.3		10.3		8.7		9.3			8.2	8.5	
1500 1630	9.9 10.0	9.4 9.5	10.2		10.2 10.2		8.8 8.7	8.7				8.3		
1800	10.0	9.6			10.2		0.7	8.8	9.3			8.2 8.1		
1930	9.9	9.4			9.7			9.0	9.2			0.1	8.5	7.2
2100	9.5	9.4	10.2		9.6			9.1	,			8.1	8.4	7.1
2230		9.3	10.1		9.5			9.1				8.2	8.1	,
2400	9.5	9.3	10.2	10.3	9.6	9.1	8.7	9.3	9.2	8.5	8.2	8.2	7.9	7.1
DATE	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15
TIME														
0130	7.1	6.9	6.4	7.1	6.8	5.8	6.2	5.7	5.8	5.9	4.8	5.4	5.0	4.2
0300	7.1	6.9	6.4		6.7	6.0		5.8	5.7	6.0	4.6		5.0	4.0
0430 0600	7.0 6.9	7.0	6.3		6.7	6.1 6.2		5.9 6.0	5.4 5.6	6.0 6.1		5.4	4.4 4.2	4.0 4.2
0730	6.9				0.0	6.2		6.1	5.7	6.0	4.6	5.3	4.2	4.1
0900	7.0				6.6	0.2		6.1	5.8	6.0	4.7	2.3	4.4	4.2
1030	7.1	7.0			6.5			5.8	5.5	5.9	4.8	5.3	4.6	4.1
1200	7.1	6.8	6.3				6.2	6.1		5.9	5.1	5.2	4.8	4.0
1330	6.9	6.6	6.5		6.5		6.1	6.0	5.5	5.6	5.1	5.2	4.2	3.8
1500	7.0	6.5	6.7		6.4		6.0	6.0	5.4	5.7	5.2	5.1	4.6	3.6
1630			6.8		6.0		5.8	5.9	5.4	5.6	5.4	5.0	4.1	3.7
1800		6.5	6.9		5.3		5.5	5.8	5.3	5.7	5.4	5.1	4.2	3.4
1930	7.0	6.7		7.1	5.4		5.6	5.7	5.5	5.8	5.3	5.0	4.7	4.0
2100	6.9	6.6	6.9	7.0	5.4		5.6	5.6	5.7	5.7	5.2	5.1	4.4	3.9
2230		6.5	7.0	6.9	5.5		5.7	5.8	5.9	5.4	5.3	5.0	4.2	3.2
2400	6.9	6.5	7.0	6.8	5.7	6.2	5.8	5.8	6.0	5.2	5.3	4.7	3.3	3.4
DATE	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
0130	3.4	2.5	3.0	2.4	1.9	0.9	0.2	0.2	0.9	1.2	1.4	1.4	1.4	1.5
0300	3.3		2.5	2.3	1.7	0.8			1.0	1.1	1.2	1.5	1.3	1.6
0430	3.3	2.5	2.4	2.2	1.4	0.7			1.4	1.2	1.4	1.6		1.4
0600	3.2	2.4			1.3	0.6			1.4	1.2	1.5	1.6		1.1
0730						0.5			1.5	1.1	1.6	1.7	1.3	1.0
0900	3.2	2.4			1.3	0.4			1.6	1.2	1.7	1.8	1.4	0.9
1030	3.3	2.3			1.4	0.4			1.8	1.1	1.8	1.9	1.3	0.8
1200	3.3		2.4	2.2	1.2	0.3		0.2	1.8	1.3	1.8		1.3	0.6
1330	3.2	2.2	2.5	2.1	0.7	0.3		0.3	1.6 1.5	1.4	1.3	1.9	1.2	0.6
1500 1630	3.1 3.0	2.3	2.6		0.4	0.2		0.4	1.4	1.5	0.9	1.8		0.5
1800	2.9	2.9	2.5		0.3			0.5	1.3	1.0	0.9	1.5		0.4
1930	2.8	3.0	2.6		0.3			0.5	1.2	1.6	0.8	1.5	1.2	0.4
2100	2.7	3.2	2.7		0.4			0.6		1.7	1.2	1.4	1.3	0.6
2230	2.6	3.4	2.7	2.1	0.8			0.6			1.2		1.4	0.5
2400	2.6	3.5	2.6	2.0	1.1	0.2	0.2	0.8	1.2	1.7	1.3	1.4	1.5	0.5

DATE	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
0130	0.4	0.2	0.2	1.2 1.2	1.2 1.3	1.0	1.0	1.1	1.1	1.3 1.2	1.3 1.3	1.3	1.2	0.2
0430 0600 0730 0900 1030	0.2 0.2 0.3		0.3 0.4 0.5 0.6 0.7	1.3 1.6 2.1 2.2 2.1	1.3 1.4 1.7 1.8	1.0	1.0 1.1 1.1 1.2	1.1 1.3 1.3 1.2	1.1 1.2		1.4 1.4 1.5	1.3	1.2 1.1 1.1 1.0	0.2 0.1 0.1 0.0
1200 1330 1500 1630 1800 1930 2100 2230	0.3		0.7 0.6 1.2 1.0 1.1 1.1 1.3	2.0 1.8 1.6 1.5 1.4 1.4 1.3	1.8 1.7 1.6 1.5 1.4 1.2 1.1	1.1 1.0 1.0 0.9 1.0	1.2 1.3 1.3 1.1 1.3	1.2 1.1	1.2 1.3 1.4		1.5 1.4	1,2	1.0 0.9 0.8 0.7 0.6 0.4	0.0
2400	0.2	0.2	1.2	1.2	0.8	1.0	1.1	1.1	1.4	1.2	1.4	1.2	0.3	0.1
DATE	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26
0130 0300	0.2	1.4	1.2	1.1	1.0	0.3	0.9	0.8	0.5	0.5	0.8	0.4	0.7	0.4
0430 0600 0730 0900	0.6 0.8 0.9 0.9	1.4 1.5					0.8 0.7 0.6	0.8 0.9 0.8 0.7			0.8 0.9 0.8	0.4		
1030 1200 1330 1500	1.0 1.1 1.2	1.5 1.4 1.4		1.1	1.0	0.3 0.4 0.4 0.5	0.6	0.6			0.8 0.7	0.6 0.7		
1630 1800 1930	1.2 1.3 1.3	1.3 1.3 1.2		1.0	0.9 0.7 0.6	0.6 0.6 0.7	0.7 0.7 0.8			0.5	0.6 0.6 0.5		0.7	
2100 2230 2400	1.4	1.2 1.1 1.1	1,2	1.0	0.5 0.4 0.3	0.8 0.9 0.9	0.8	0.5	0.5	0.6 0.7 0.8	0.5	0.7	0.6 0.5 0.5	0.4
DATE	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
0130 0300 0430	0.3	0.3	0.0	0.0 0.0 0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.5 0.4	0.2
0600 0730 0900	0.3			0.2					0.2	0.3				
1030 1200 1330 1500 1630	0.2	0.3 0.2 0.1	0.0 0.1 0.1 0.0						0.3 0.2		0.3 0.4 0.4 0.5	0.5	0.4	
1800 1930 2100		0.1	0.0								0.5	0.6	0.3	0.2 0.1
2230 2400	0.3	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.5	0.3 0.2	0.1

DATE	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23
TIME 0130 0300 0430	0.1	0.1	0.2	0.2 0.2 0.3	0.2	0.2	0.2	0.5	0.3	0.2	0.2	0.8	0.7 0.8	0.8
0600 0730 0900 1030 1200 1330 1500 1630		0.2		0.4 0.5 0.5 0.4 0.4 0.3			0.2		0.3	0.2	0.2 0.3 0.3 0.4 0.4	0.8 0.7 0.7 0.6	0.8 0.9 1.0	0.7 0.8 0.8 0.7 0.6 0.5
1800 1930 2100 2230							0.4 0.5 0.6	0.5		0.4 0.3 0.2	0.6 0.7 0.7 0.8	0.6 0.7	1.0	0.4
2400	0.1	0.2	0.2	0.3	0.2	0.2	0.6	0.4	0.2	0.2	0.8	0.7	0.9	0.4
DATE	2-24	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8
0130 0300	0.5	0.6 0.5	0.6	0.3	0.3	0.4	0.4	0.6	0.7	0.7	0.7	1.1	1.1 1.0	1.1
0430 0600 0730	0.7	0.5	0.5	0.2				0.6 0.7			0.7 0.8 0.9			
0900 1030		0.4						0.7 0.8			1.0			
1200 1330 1500	0.7			0.2			0.4							
1630 1800	0.8	0.3		0.3		0.4		0.8						
1930 2100	0.8	0.4				0.3							1.0	1.1 1.0
2230 2400	0.7	0.7 0.6	0.4	0.3	0.3	0.3	0.5	0.7	0.7	0.7	1.0 1.1	1.1	1.1	1.0
DATE	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
TIME 0130 0300	1.0	1.0	1.0	1.2	1.3	1.3	1.3	1.6	2.3	1.7	1.6	1.7	2.0	2.0
0430 0600 0730 0900 1030	1.0 1.1 1.2 1.1		1.0	1.2 1.3 1.3 1.2			1.3 1.4	1.6 1.7 1.7 1.9 2.0	2.3	1.0	1.7 1.7 1.8	1.7 1.8 1.8 1.9		2.0
1200 1330 1500 1630 1800			1.1 1.1 1.2		1.3		1.4 1.5	2.1 2.2	2.2		1.8 1.7	1.9		2.1
1930 2100 2230					1.2			2.3	2.1 2.0 1.9			2.1 2.1 2.0		2.2
2400	1.1	1.0	1.2	1.2	1.3	1.3	1.5	2.2	1.8	1.6	1.7	2.0	2.0	2.2

LAKE MICHIGAN, STATION 7, 15 m continued.

DATE	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5
TIME														
0130	2.2	2.2	2.2	2.1	1.9	1.7	1.7	1.6	1.4	1.4	1.4			
0300					1.8									
0430				2.1	1.7									
0600				2.2										
0730								1.6						
0900				2.2				1.5						
1030				2.1		1.7	1.7	1.4			1.4			
1200				2.0		1.8	1.6				End o	£		
1330					1.7	1.7					Recor			
1500					1.6	1.8				1.4	Kecor	u		
1630							1.6			1.5				
1800						1.8	1.7							
1930			2.2			1.9								
2100			2.3			1.8								
2230			2.3	2.0	1.6									
2400	2.2	2.2	2.2	1.9	1.7	1.8	1.7	1.4	1.4	1.5				

LAKE MICHIGAN - STATION 8. Depth 10 m. Start 24 November 1963, 1000 CST; end 10 April 1964, 1712 CST. Instrument serial no. 122, film record 20,042. Initial cal. Indet.; final cal. Indet.

DATE	11-24	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7
TIME														
0130		9.6	9.3	9.1	9.0	9.0	8.5	8.0	8.1	8.0	8.0	8.1	7.8	7.8
0300				9.1			8.4						7.7	
0430			9.3	9.0			8.4		8.1				7.6	7.8
0600		9.6	9.2				8.3	8.0	8.0				7.6	7.9
0730		9.5	9.1				8.2	8.1					7.5	8.0
0900		9.4					8.1	8.2		8.0		8.1		
1030	10.0	9.3	9.1		9.0	9.0	8.0	8.3		8.1		8.2		
1200		9.2	9.2		9.1	8.9				8.1			7.5	
1330		9.1	9.1			8.8				8.0		8.2	7.6	
1500				9.0	9.1		8.0	8.3				8.1	7.7	
1630	10.0			8.9	9.0		8.1	8.2				8.0	7.8	
1800	9.9		9.1				8.2	8.1	8.0		8.0	8.0		
1930	9.8		9.2				8.3		8.1		8.1	7.9		
2100	9.6	9.1		8.9		8.8	8.2							8.0
2230		9.2	9.2	9.0		8.7	8.1							7.9
2400	9.6	9.3	9.1	9.0	9.0	8.6	8.1	8.1	8.1	8.0	8.1	7.9	7.8	7.9

			,		,									
DATE	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21
0130	7.9 7.9	7.1	6.9	6.6	6.5	6.1	6.0	5.8	5.5	5.2	5.2	5.3	5.0	5.0
0430	7.7	7.1	6.7		6.5				5.5	5.2	5.2			
0600	7.6	7.0	6.7		6.4				5.3	5.1	5.3			
0730	7.5	,,,	6.6		0	6.1			3.3	J.±	J. J	5.3		
0900	7.4					6.0						5.2		
1030	7.3				6.4									
1200	7.3	7.0		,	6.3									
1330	7.2	6.9					6.0					5.2		
1500	7.1						5.9	5.8				5.0		
1630					6.3			5.7						
1800					6.2			5.7						5.0
1930	7.1			6.6				5.6	5.3					4.9
2100 2230	7.2			6.5	6.2		5.9		5.2	5.1				
2400	7.2	6.9	6.6	6.5	6.1 6.1	6.0	5.8 5.8	5.6	5.2	5.2	F 2	F 0	F 0	
								5.5		5.2	5.3	5.0	5.0	4.9
DATE TIME	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4
0130	4.9	4.9	4.9	4.8	4.8	4.6	4.5	4.4	4.3	4.2	4.0	4.0	4.0	4.0
0300							4.5	7.7	7.5	7.2	4.0	4.0	4.0	4.0
0430					4.8									
0600					4.7									
0730							4.5							
0900							4.4		4.3	4.2				
1030									4.2	4.1				
1200					4.7									
1330					4.6	4.6								
1500			4.9			4.5								
1630 1800			4.8					, ,		, ,				
1930								4.4 4.3		4.1 4.0				
2100								4.3		4.0				
2230														
2400	4.9	4.9	4.8	4.8	4.6	4.5	4.4	4.3	4.2	4.0	4.0	4.0	4.0	4.0
DATE	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18
TIME 0130 0300	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.9 3.8	3.2	3.1	3.2	3.2	3.1	3.0
0430								3.7						
0600								3.7	3.2				3.1	
0730 0900								3.6	3.1				3.0	
1030								3.5		3.1				
1200								3.5		3.2				
1330								3.4		3.2				
1500							4.0							
1630							3.9	3.4						
1800								3.3				3.2		
1930								3.3				3.1		
2100								3.2						
2230 2400	4.0	4.0	4.0	4.0	4.0	4.0	3.9	3.2	3.1	3.2	3.2	3.1	3.0	3.0
2.700		7.0	7.0	7.0	7.0	7.0	3.7	3.2	J.1	J . Z	J. Z	J. I	3.0	3.0

DATE TIME	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1
0130 0300 0430 0600	3.0	3.0	3.1	3.1 3.1 3.0	3.0	3.0	3.1	3.0	3.0	2.9	2.9	3.0	2.9	2.8 2.7 2.6 2.6
0730 0900 1030 1200		3.0 3.1		3.0		3.1		3.0 3.1	3.0 2.9		2.9			2.5 2.5 2.4
1330 1500 1630 1800							3.1 3.0	3.1 3.0			3.0		2.9	2.4
1930 2100 2230 2400	3.0	3.1	3.1	3.0	3.0	3.1	3.0	3.0	2.9	2.9	3.0	3.0 2.9 2.9	2.8	2.3 2.2 2.2
DATE	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15
TIME 0130 0300	2.2	2.0	2.0	2.1	2.3	2.4	2.6	2.7	2.6	2.5	2.5	2.6	2.6	2.6
0430 0600 0730 0900 1030	2.1		2.0 2.1	2.1 2.2	2.3 2.4 2.5 2.6 2.7			2.7 2.6	2.6 2.5	2.5	2.5			
1200 1330 1500				2.3	2.6 2.5 2.5						2.6			0.6
1630 1800 1930 2100	2.1 2.0				2,4	2.4 2.5 2.6	2.6 2.7			2.4				2.6
2230 2400	2.0	2.0	2.1	2.3	2.4	2.6	2.7	2.6	2.5	2.5 2.5	2.6	2.6	2.6	2.7
DATE TIME	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	2-29
0130 0300 0430	2.7	2.7	2.6	2.8	2.4	2.3	2.4	2.3	2.4	2.3 2.3 2.2	2.2	2.2	2.2	2.3
0600 0730 0900 1030		2.7	2.6 2.7 2.8	2.8 2.7		2.3	2.4	2.3	2.4				2.2	
1200 1330 1500				2.7										
1630 1800 1930 2100				2.6 2.5	2.4									
2230 2400	2.7	2.6	2.8	2.5 2.4	2.3	2.4	2.3	2.4	2.3	2.2	2.2	2.2	2.3	2.3

LAKE MICHIGAN, STATION 8, 10 m continued.

DATE	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14
TIME 0130	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.2
0300	2.3	2.3	2.2	2.2	2.1	2.2	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.2
0430			2.2			2.1			2.2					
0600			2.1				2.2	2.3	2.1					
0730					0.1		2.3	2.2						
0900 1030		2.3			2.1									
1200		2.2			2.2									
1330		2.2												
1500					2.2								2.1	
1630			2.1		2.3								2.2	
1800			2.2			2.1								
1930						2.2								
2100 2230					2.3									
2400	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.2	2.2
DATE	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28
TIME	3-13	3-16	3-1/	3-10	3-19	3-20	3-21	3-22	3-23	3-24	3-23	3-20	3-2/	3-28
0130	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.3	2.3	2.2			
0300														
0430						2.3								
0600						2.2								
0730 0900					2.2									
1030					2.3			2.2						
1200								2.3						
1330														
1500														
1630														
1800											0.0			
1930 2100											2.2			
2230											End 1	.900 CS	T	
2400	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.3	2.3	2.3				

LAKE MICHIGAN - STATION 8. Depth 22 m. Start 24 November 1963, 1000 CST; end 10 April 1964, 1712 CST. Instrument serial no. 112, film record 20,041. Initial cal. 0°C; final cal. 0.5°C.

DATE	11-24	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7
TIME 0130		9.0	8.9	8.9	8.4	8.5	8.1	7.9	7.9	7.8	7.4	7.6	7.2	7.1
0300				8.8			8.0			7.7		7.7	7.1	
0430				8.7						7.6			7.1	
0600				8.6	8.4					7.4			7.0	
0730			8.9	8.5	8.5	8.5		7.9	7.9	7.5		7.7		
0900			8.8		8.6	8.4		8.0	7.8		7.4	7.8		7.1
1030 1200	9.1 9.2	9.0 8.9				8.4	8.0 7.9		7.8 7.7		7.3 7.3	7.8 7.7		7.3
1330	9.2	0.9				0.3	7.9		7.6		7.2	/./		
1500									7.0		7.2			
1630	9.2		8.8			8.3	7.9				7.3	7.7		
1800	9.1		8.9			8.2	8.0		7.6		7.4	7.6		
1930	9.0							8.0	7.7			7.3		7.3
2100								7.9	7.8			7.2		7.2
2230						8.2	8.0				7.4		7.0	
2400	9.0	8.9	8.9	8.5	8.6	8.1	7.9	7.9	7.8	7.5	7.5	7.2	7.1	7.2
DATE TIME	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21
0130	7.1	6.9	6.1	6.0	6.0	5.8	5.5	5.1	4.9	4.7	4.8	4.9	4.0	4.0
0300	,	0.5	0.1	0.0	0.0	5.8	5.3	J. 1	4.7	7.7	4.0	4.7	7.0	4.0
0430	7.1					5.7					4.8	4.9		
0600	7.0		6.1								4.9	4.8		
0730		6.9	6.0		6.0							4.8		
0900		6.8			5.9							4.7		
1030												4.7		
1200	7.0	6.8										4.6		
1330 1500	7.0 6.9	6.6 6.3						5.1				4.5 4.0		
1630	0.9	0.3				5.7		5.0				4.0		
1800		6.3				5.6	5.3	3.0		4.7				
1930		6.2				5.0	5.2			4.8				
2100		6.2			5.9				4.9					
2230		6.1			5.8		5.2		4.8					
2400	6.9	6.1	6.0	6.0	5.8	5.6	5.1	5.0	4.7	4.8	4.9	4.0	4.0	4.0
DATE	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4
TIME	, ,	, ,	, ,	, ,	, ,		, ,	2.0	2 5	2 2	2.0	2.6	2.0	2 1
0130 0300	4.0	4.0	4.0	4.1	4.1	4.0	4.0	3.8	3.5	3.3	3.0	3.0	3.0	3.1
0430								3.8	3.5 3.4					
0600					4.1			3.7	3.4	3.3				
0730					4.0			3.7		3.2				
0900							4.0		3.4	3,2				
1030							3.9	3.7	3.3	3.2				
1200								3.6		3.1				
1330										3.1				
1500										3.0				
1630				, ,			2.0	2 6					3.0	
1800				4.1 4.0			3.9	3.6					3.1	
1930 2100				4.0			3.8	3.5						
2230														
2400	4.0	4.0	4.0	4.0	4.0	4.0	3.8	3.5	3.3	3.0	3.0	3.0	3.1	3.1

Name
0430
0600
100
1330 3.0
1330 3.0 1500 2.9 2.9 2.8 2.8 2.7 2.6 2.7 2.6 2.7 2.6 2.7 2.6 2.7 2.6 2.7 2.6 2.7 2.6 2.7 2.6 2.7 2.6 2.7 2.6 2.7 2.6 2.7 2.6 2.7 2.8 2.7 2.8 2.7 2.8 2.7 2.8 2.7 2.8 2.7 2.8 2.8 2.7 2.8 2.
1630
1680
1930 2,9 2,9 2,9 2,9 2,9 2,9 2,9 2,9 2,9 2,0 2,6 2,7 2,6 2,5 2,5 DATE 1-19 1-20 1-21 1-22 1-23 1-24 1-25 1-26 1-27 1-28 1-29 1-30 1-31 2-1 TIME
210
2400 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.7 2.6 2.7 2.6 2.6 2.5 2.5 DATE 1-19 1-20 1-21 1-22 1-23 1-24 1-25 1-26 1-27 1-28 1-29 1-30 1-31 2-1 TIME 10130 2.4 2.4 2.4 2.3 2.3 2.3 2.3 2.2 2.2 2.0 2.0 2.0 2.1 2.0 1.9 0300 0430 0600 0730 0 0 0 0 0 0 0600 0730 0 0 0 0 0 0 0300 1 0 0 0 0 0 0 1030 2 4 2.4 2.3 2.5 2.5 2.1 2.1 2.0 2.1 1200 2 2 2 2 2 2 2 2 2
Name
THE 0130 2.4 2.4 2.4 2.3 2.3 2.3 2.3 2.2 2.2 2.0 2.0 2.0 2.1 2.0 1.9 0300 0430 0660 0730
0130
0300
0600
0600
0900
1030
1200 2.3
1330
1630 2.1 2.0 2.0 2.1 1800 2.1 2.0 2.1 2.0 2.0 2.1 1930 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.1 2.0 2.0 2.1 2.0 2
1800 2.0 2.1
1930 2100 2100 1.7 2230 2.4 2.4 2.3 2.3 2.3 2.3 2.2 2.2 2.0 2.1 2.1 2.0 1.9 1.6
2100 2230 2400 2.4 2.4 2.3 2.3 2.3 2.3 2.2 2.2 2.0 2.1 2.1 2.0 1.9 1.6
2400 2.4 2.4 2.3 2.3 2.3 2.3 2.2 2.2 2.0 2.1 2.1 2.0 1.9 1.6
DATE 2-2 2-3 2-4 2-5 2-6 2-7 2-8 2-9 2-10 2-11 2-12 2-13 2-14 2-15
TIME
0130 1.6 1.1 1.0 1.6 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.9 1.9
0300 1.5
0430 1.4 1.6
0600 1.3 1.7 1.8 0730 1.7 1.9
0900 1.0 1.8
1030 1.3 1.1 1.7
1200 1.2 1.3
1330 1,4 1500 1,1 1,5
1630 1.0 1.6 1.7
1800 1.8
1930 1.8 2100 1.2 1.7 1.9
2100 1,2 2230 1,1 1.8
2400 1.1 1.0 1.6 1.7 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.9 1.9 1.8

DATE	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	2-29
TIME														
0130	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.4	1.4	1.5	1.6
0300										1.0	1.7		1.5	1.0
0430										1.6				
0600										1.5		1.4		
0730										1.5				
										1.4		1.5		
0900													1.5	
1030													1.6	1.6
1200														1.7
1330														
1500									1.7					
1630									1.6					
1800														
1930														
2100														
2230														
2400	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.4	1.4	1.5	1.6	1.7
DATE	3-1	3-2	3-3	3-4	3-5	_3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14
TIME														
0130	1.7	1.6	1.3	1.1	1.1	1.4	1.4	1.5	1.5	1.3	1.1	1.0	1.0	1.1
0300			1.2											
0430		1.6	1.2			1.4			1.5					1.1
0600	1.7	1.5	1.1			1.3			1.4	1.3	1.1			1.2
0730	1.6						1.4			1.2	1.0			
0900					1.1		1.5							
1030		1.5			1.2								1.0	1.2
1200		1.4					1.5						1.1	1.3
1330							1.6		1.4					
1500					1.2				1.3	1.2				
1630					1.3					1.1				
1800						1.3								
1930					1.3	1.4								
2100		1.4			1.4									1.3
2230		1.3			1.4									1.4
2400	1.6	1.3	1.1	1.1	1.4	1.4	1.6	1.5	1.3	1.1	1.0	1.0	1.1	1.4
										1.1	1.0	1.0	1.1	
DATE	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28
TIME														
0130	1.4	1.5	1.5	1.4	1.3	1.5	1.5	1.5	1.5	1.6	1.6	1.5	1.6	1.6
0300														
0430														
0600			1.5		1.3				1.5					
0730			1.4	1.4	1.4				1.6					
0900				1.3										
1030											1.6			
1200											1.5			
1330														
1500	1.4													
1630	1.5													
1800														
1930												1 5		
2100					1.4							1.5		
2230					1.5							1.6		
2400	1.5	1.5	1.4	1.3	1.5	1.5	1.5	1 5	1 (1 (1.	1.	1 (
2400	1.5	1.0	1.4	1.3	1.0	1.3	1.0	1.5	1.6	1.6	1.6	1.6	1.6	1.6

LAKE MICHIGAN, STATION 8, 22 m continued.

DATE	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11
TIME													- O	
0130	1.5	1.4	1.4	1.4	1.3	1.3	1.4	1.4	1.4	1.4			Unreadab1	
0300													ad	
0430													ře	
0600				1.4									ğ	
0730				1.3		1.3				1.4			1.3	
0900						1.4					a)	a)		
1030											10	7		
1200											d D	123		
1330										a	Unreadable	Unreadable		
1500										P1	ä	ä		
1630										da,	5	5		
1800	1.5									Unreadable			1.3	
1930	1.4									ä				-
2100										b			End o	
2230													recor	u .
2400	1.4	1.4	1.4	1.3	1.3	1.4	1.4	1.4	1.4					

LAKE MICHIGAN - STATION 8. Depth 30 m. Start 24 November 1963, 1000 CST; end 10 April 1964, 1712 CST. Instrument serial no. 126, film record 20,044. No temperature correction.

DATE	11-24	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7
TIME														
0130		9.0	8.9	8.9	8.8	8.9	8.3	8.0	8.0	8.0	8.0	8.0	7.8	7.5
0300													7.6	
0430				8.9			8.3						7.5	7.5
0600				8.8			8.2							7.6
0730						8.9	8.2							7.7
0900						8.8	8.1							7.8
1030	9.2					8.7	8.0							7.9
1200						8.7								
1330						8.6								
1500	9.2					8.6								
1630	9.1	9.0				8.5	8.0					8.0		
1800	9.1	8.9			8.8		8.1					7.9		
1930	9.0				8.9									
2100						8.5	8.1							7.9
2230						8.4	8.0					7.9		7.8
2400	9.0	8.9	8.9	8.8	8.9	8.3	8.0	8.0	8.0	8.0	8.0	7.8	7.5	7.8

DATE	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21
0130 0300	7.8 7.8	7.2	6.9	6.9	6.6	6.2	6.0	5.8	5.5	5.1	5.1 5.1	5.3	5.0	4.9
0430	7.6				6.6				5.5		5.2			
0600	7.5	7.2			6.5	6.2			5.4					
0730		7.1				6.1			5.3			5.3		
0900	7 5	7 1			6.5						5.2 5.3	5.2		
1030 1200	7.5 7.4	7.1 7.0			6.4	6.1	6.0				3.3			
1330	7.3	7.0			6.4	6.0	5.9	5.8				5.2		
1500	7.2				6.3			5.7				5.1		
1630								5.6				5.0	5.0	
1800									5.3				4.9	
1930							5.9		5.2					
2100 2230		7.0 6.9		6.9 6.8	6.3 6.2		5.8	5.6	5.2 5.1					
2400	7.2	6.9	6.9	6.8	6.2	6.0	5.8	5.5	5.1	5.1	5.3	5.0	4.9	4.9
DATE			12-24							12-31	1-1	1-2	1-3	1-4
TIME														
0130	4.9	4.9	4.9	4.9	4.8	4.8	4.7	4.6	4.4	4.0	4.0	4.0	4.0	4.0
0300														
0430 0600				4.9				4.6						
0730				4.8		4.8		4.5	4.4					
0900				4.0		4.7		4.5	4.3					
1030														
1200									4.3					
1330								4.5	4.2					
1500								4.4	4.1					
1630 1800							4.7							
1930							4.6							
2100							4.0							
2230									4.1					
2400	4.9	4.9	4.9	4.8	4.8	4.7	4.6	4.4	4.0	4.0	4.0	4.0	4.0	4.0
DATE	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18
TIME 0130	4.0	4.0	4.0	4.0	4.0	4.0	3.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0
0300	4.0	4.0	4.0	4.0	4.0	4.0	3.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0
0430														
0600														
0730							3.9							
0900							3.1							
1030							3.0							
1200 1330														
1500														
1630														
1800						4.0								
1930						3.9								
2100														
2230 2400	4.0	4.0	4.0	4.0	4.0	3.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
2400	4.0	4.0	4.0	4.0	4.0	3.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	3.0

DATE	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1
0130 0300	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.8	2.8	2.9	2,9	2.8	2.2
0430 0600 0730								3.0				2.9 2.8	2.8 2.7	2.0
0900 1030												2.0	2.7 2.6	
1200 1330 1500								2.9		2.8			2.5 2.4 2.3	
1630 1800								2.8		2.,,			2.5	
1930 2100 2230						3.0 2.9	3.0 2.9						2.3	2.0
2400	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.8	2.8	2.9	2.9	2.8	2.2	2.0 1.9
DATE	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15
0130 0300	2.0	2.0	2.0	2.2	2.1	2.2	2.2	2.3	2.2	2.1	2.2	2.2	2.2	2.2
0430 0600 0730			2.0	2.2					2.2					
0900 1030			2.1	2.3			2.2	2.3	2.1	2.1				
1200				2.3			2.3	2.2		2.2				
1330 1500				2.2										
1630 1800														
1930 2100			2.1	2.2	2.1									
2230 2400	2.0	2.0	2.2	2.1	2.2	2.2	2.3	2.2	2.1	2.2	2.2	2.2	2.2	2.2
DATE	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	2-29
0130 0300 0430	2.2	2.2	2.3	2.2 2.2 2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1
0600 0730									2.1					
0900		2.2							2.0					
1030 1200		2.3												
1330 1500			2.3											
1630 1800			2.2											2.1
1930 2100												2.0		2.0
2230 2400	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.0

DATE TIME	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14
0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1930 2100 2230	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2400 DATE	2.0 3-15	2.0 3-16	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
TIME			3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28
0130 0300 0430 0600 0730 0900 1030 1200 1330	2.0	2.0	2.0	2.1	2.2	2.2 2.2 2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2
1500 1630 1800 1930 2100 2230 2400	2.0	2.0	2.0 2.1 2.1	2.2	2,2	2.1	2,1	2.1	2.1	2.1	0.1	0.0	2.3	2.2
DATE	3-29	3-30	3-31	4-1	4-2	4-3	4-4	2.1 4-5	2.1 4-6	2.1 4-7	2.1 4-8	2.2 4-9	2.2 4-10	2.1 4-11
TIME 0130 0300 0430 0600 0730 0900	2.1	2.0	2.0	2.1	***************************************		· · · · · · · · · · · · · · · · · · ·		····, •				7 10	-7-11
1030 1200 1330 1500 1630 1800 1930 2100 2230	2.1		2.0	2.1 2.0										
2400	2.0	2.0	2.1	2.0	Data e	nds.								

LAKE MICHIGAN - STATION 8. Depth 60 m. Start 24 November 1963, 1000 CST; end 10 April 1964, 1712 CST. Instrument serial no. 127, film record 20,045. Initial cal. 0°C; final cal. 0°C.

DATE	11-24	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7
0130		4.9	4.9	4.9	4.8	4.8	4.9	6.0	5.0	5.0	4.9	7.0	4.9	7.7
0300				5.0				4.9	5.1	5.1		7.5	4.9	7.7
0430				4.9					5.2	5.3	4.9	8.0	5.0	7.0
0600				, ,			4.9	4.9	5.1	5.1	5.0		6.9	6.9
0730 0900				4.9 4.8			5.0 4.9	5.7	5.2	5.4	- 0		6.8	7.6
1030	4.9			4.0		4.8	4.9	4.9 4.9	4.9	5.0 4.9	5.0 5.5		6.0 5.4	7.7 7.8
1200	4.9					4.9		5.2		5.0	6.5	8.0	5.4	7.0
1330						5.0	4.9	6.5		4.9	6.9	6.9	5.0	
1500						4.9	5.1	6.3			•••	6.3	5.0	
1630							5.5	5.8			6.9	6.6	5.8	7.8
1800							5.0	5.1			5.8	5.3	7.2	7.2
1930						4.9	6.2	5.0			6.0	5.3	7.7	7.6
2100						4.8	7.2				5.9	5.0		7.8
2230	, ,					4.8	7.3	- 0			5.8	4.9		7.8
2400	4.9	4.9	4.9	4.8	4.8	4.9	7.3	5.0	4.9	4.9	7.0	4.9	7.7	7.3
DATE	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21
0130	7.5	7.2	6.8	6.3	5.6	6.0	5.8	5.9	5.7	5.5	5.5	5.6	5.1	5.1
0300	7.1	7.2	6.0	6.7	5.9	6.1	5.9							
0430	7.0	7.0	5.4	6.0	6.3	6.1	6.0		5.7			5.6		
0600	5.4	6.0	5.5	5.5	6.5	6.0	5.8		5.6			5.5		
0730	6.2	6.9	5.3	5.6	6.5	5.5	5.9	F 0			5.5			
0900 1030	5.6 6.2	7.0 7.0	6.2 6.8	5.5 5.6	6.0 6.0	6.0 6.0	5.8 5.9	5.9 5.8			5.6			
1200	7.0	6.3	6.7	5.4	6.2	5.7	6.0	3,0				5.5		
1330	7.0	6.0	6.9	6.1	6.2	5.5	6.0					5.4		
1500	7.2	6.2	6.3	6.4	6.0	5.6	5.9		5.6			5,3		
1630	7.0	6.2	6.0	6.9	6.2	5.7	5.8		5.5			5.1		
1800	7.0	6.1	6.0		6.1	5.8	5.9	5.8						
1930	5.8	6.7	6.1	6.9	6.0	5.5		5.7						
2100	7.2	6.8	6.6	6.3	6.1	5.3								
2230	7.0	5.5	6.5	5.6	5.7	5.5	- 0							
2400	7.2	6.2	6.9	5.6	6.0	5.4	5.9	5.7	5.5	5.5	5.6	5.1	5.1	5.1
DATE	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4
0130	5.1	5.1	5.1	5.1	5.1	5.0	5.0	5.0	5.0	4.9	4.5	4.4	4.3	4.2
0300														
0430														
0600														
0730														
0900 1030									5.0 4.9	4.9 4.8		4.4		
1200									4.9	4.8		4.3		
1330										4.7				
1500					5.1					4.7				
1630					5.0					4.6				
1800										4.6	4.5			
1930				5.1						4.5	4.4		4.3	
2100				5.0									4.2	
2230 2400	5 1	5.1	5.1	5.0	5.0	5.0	5.0	5.0	4.9	4.5	4.4	4.3	4.2	4.2
2400	5.1	J . I	J. I	٥.0	٠.٠	٥.0	5.0	٥.0	4.7	4.5	4.4	4.5	4.2	4.2

DATE	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18
TIME 0130	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.1	4.0	4.0	4.0	4.0	3.9	3.9
0300 0430														
0600								, .						
0730 0900								4.1 4.0						3.9 3.8
1030 1200														
1330							4.2							
1500 1630							4.1							
1800												4.0		
1930 2100												3.9	3.9	
2230													3.8	
2400	4.2	4.2	4.2	4.2	4.2	4.2	4.1	4.0	4.0	4.0	4.0	3.9	3.8	3.8
DATE	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1
0130 0300	3.8	3.8	3.9	3.8	3.8	3.8	3.8	3.4	3.3	3.0	3.0	3.2	3.2	3,1
0430													3.2	
0600 0730			3.9 3.8						3.3				3.1	3.1 3.0
0900											2.0			
1030 1200		3.8 3.9							3.2		3.0 3.1			
1330							3.8		3.1		3.1			
1500 1630							3.7 3.6		3.1 3.0		3.2			
1800 1930							3.5 3.4					3.2		
2100							3.4					3.1	3.1	3.0
2230 2400	3.8	3.9	3.8	3.8	3.8	3.8	3.5 3.5	3.4	3.0	3.0	3.2	3.1	3.2 3.2	2.9
DATE	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15
TIME 0130	2.9	2.8	2.9	3.0	3.0	2.9	3.0	3.0	3.1	3.0	3.0	3.0	3.0	3.0
0300		2.0	2.9	3.0	3.0	2.9	3.0	3.0	3.1	3.0	3.0	3.0	3.0	3.0
0430 0600	2.9		2.9											
0730	2.0		3.0											
0900 1030								3.0						
1200								3.1						
1330 1500		2.8			3.0 2.9				3.1 3.0					
1630														
1800 1930						2.9								
2100 2230						3.0								
2400	2.8	2.9	3.0	3.0	2.9	3.0	3.0	3.1	3.0	3.0	3.0	3.0	3.0	3.0

DATE	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	2-29
TIME	2-10											2-21	2-20	2-29
0130	3.0	3.0	3.0	3.0	2.9	2.8	3.0	2.9	2.9	2.8	2.8	2.8	2.8	2.8
0300 0430														
0600														
0730														
0900														
1030														
1200														
1330 1500				3.0		2.8								
1630				2.9		2.9								
1800					2.9				2.9					
1930					2.8				2.8					
2100 2230						2.9	2.0							
2400	3.0	3.0	3.0	2.9	2.8	3.0 3.0	3.0 2.9	2.9	2.8	2.8	2.8	2.8	2.8	2.8
DATE	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8						
TIME	2-1	3-2	3-3	3-4	3-3	3-0	3-7	3-0	3-9	3-10	3-11	3-12	3-13	3-14
0130	2.8	2.7	2.6	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4
0300														
0430 0600			2.6											
0730		2.7	2.5											
0900		2.6												
1030														
1200														
1330 1500	2.8													
1630	2.7													
1800	-• /													
1930														
2100														
2230 2400	2.7	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4
DATE	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28
TIME														
0130 0300	2.4	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.7	2.7	2.6	2.6	2.8
0430													2.6	
0600					2.5								2.7	
0730					2.6						2.7			
0900											2.6			2.8
1030 1200														2.9
1330	2.4													
1500	2.5													2.9
1630									2.6					2.8
1800 1930									2.6					
2100									2.,					
2230														
2400	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.7	2.7	2.6	2.6	2.7	2.8

LAKE MICHIGAN, STATION 8, 60 m continued.

1800

1930

2100

2230

2400

4.0 3.9 3.9 3.9

4.0

3.9

4.0

3.9

DATE	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11
TIME														
0130	2.8	2.8	2.7	2.7										
0300														
0430														
0600				2.7										
0730		2.8												
0900		2.7		Data	ends.									
		2.7												
1030														
1200														
1330														
1500														
1630														
1800														
1930														
2100														
2230														
2400	2.8	2.7	2.7											
2400	2.0	2.7	2.7											

LAKE MICHIGAN - STATION 8. Depth 90 m. Start 24 November 1963, 1000 CST; end 10 April 1964, 1712 CST. Instrument serial no. 349, film record 20,046. Initial cal. Indet.; final cal. 0°C,

DATE 11-24 11-25 11-26 11-27 11-28 11-29 11-30 12-1 12-2 12-3 12-4 12-5 12-6 12-7 TIME 0130 4.0 4.0 4.0 3.9 3.9 3.9 4.0 4.0 4.0 4.0 4.0 4.0 4.0 0300 0430 0600 4.0 0730 3.9 3.9 4.0 0900 4.0 4.1 1030 4.0 4.2 1200 4.1 1330 3.9 4.1 1500 4.0 4.0 1630

4.0 4.0

4.0 4.0 4.0 4.0

4.0 4.0

4.0

3.9

3.9

3.9

DATE	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21
0130 0300	4.0	4.0	4.0	4.0	4.0	4.0	3.9	4.0	4.1	4.8	4.9	5.0	4.5	4.3
0430							3.9		4.1		4.9			
0600							4.0		4.2		5.0			
0730 0900									4.3 4.7	4.8				
1030									4.7	4.8				
1200		4.0								4.9		5.0		
1330		4.1							4.7			4.9		
1500									4.8			4.7		
1630												4.6		
1800		, ,				4.0								
1930 2100		4.1 4.0				3.9						1. 6	4.5	
2230		4.0										4.6 4.5	4.3	
2400	4.0	4.0	4.0	4.0	4.0	3.9	4.0	4.0	4.8	4.9	5.0	4.5	4.3	4.3
DATE	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4
TIME 0130	4.2	4.2	4.3	4.2	4.2	4.2	4.1	4.0	4.0	4.0	3.8	3.8	2 7	2 5
0300	4.2	4.2	4.3	4.2	4.2	4.2	4.1	4.0	4.0	4.0	3.0	3.8	3.7	3.5
0430						4.2						3.7		
0600						4.1								
0730														
0900							4.1							
1030 1200							4.0			4.0				
1330	4.2									3.9	3.8			
1500	4.3										3.9	3.7	3.7	
1630											3.7	3.8	3.6	
1800										3.9	3.9			
1930	4.3									3.8	3.8	3.8		
2100	4.2											3.7	3.6	
2230 2400	4.2	4.2	4.3	4.2	4.2	4.1	4.0	4.0	4.0	3.8	3.8	3.7	3.5 3.5	3.5
DATE	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18
TIME 0130	3.5	3.5	3.5	3.7	3.6	3.6	3.5	3.2	3.0	3.0	3.0	3.0	3.0	2.9
0300	3.3	3.3	3.3	3.7	3.0	3.0	3.3		3.0	3.0	3.0	3.0	3.0	2.9
0430								3.2						
0600								3.1						
0730 0900				3.7										
1030				3.6			3.5						3.0	
1200				3.0			3.4						2.9	
1330														
1500														
1630			3.5				3.4							
1800 1930			3.6				3.3							
2100														
2230														
2400	3.5	3.5	3.6	3.6	3.6	3.6	3.3	3.1	3.0	3.0	3.0	3.0	2.9	2.9

DATE TIME	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1
0130 0300	2.9	2.9	2.9	2.9	2.9	2.9	3.0	2.9	2.9	2.5	2.6	2.8	2.8	2.8
0430 0600 0730									2.8		2.6 2.7 2.8			2.8
0900 1030						2.9 3.0								
1200 1330 1500							3.0		2.7	2.5				2.7 2.6
1630 1800							2.9			2.6				2.6
1930 2100														2.5
2230 2400	2.9	2.9	2.9	2.9	2.9	3.0	2.8	2,9	2.6 2.5	2.6	2.8	2.8	2.8	2.5
DATE	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15
0130 0300	2.5	2.6	2.6	2.8	2.9 2.8	2.9	2.7 2.8	2.6	2.8	2.6	2.5	2.9	2.7	2.8
0430 0600 0730			2.6		2.8		2.8 2.7 2.6			0.6			2.7 2.8	
0900			2.8		2.9		2.5			2.6				2.8
1030	2.5					2.9		2.6			2.5			2.7
1200 1330	2.6					2.8		2.7			2.8			2.8
1500				2.8		2.8	2.5				-,,	2.9		
1630 1800				2.9		2.9	2.6	2.7				2.7		
1930			2.8					2.8						
2100 2230			2.7 2.8			2.9								
2400	2.6	2.6	2.8	2.9	2.9	2.8	2.6	2.8	2.8	2.5	2.9	2.7	2.8	2.8
DATE	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	2-29
TIME 0130	2.7	2.5	2.7	2.7	2.3	2.2	2.4	2.5	2.3	2.1	2.1	2.1	0.1	
0300		2.5	2.,		2.3	2.2	2.4	2.5	2.3	2.1	2.1	2.1	2.1	2.1
0430 0600	2.7			2.7										
0730	2.0			2.6	2.3		2.4	2.5						
0900					2.2		2.5	2.5						
1030 1200								2.5						
1330				2.6				2.6						
1500				2.5							2.1			
1630 1800	2.6			2.5		2.2			2.3		2.2			
1930				2.4					2.2					
2100 2230		2.5		2.4				2.6						
2400	2.5	2.7	2.7	2.3	2.2	2,4	2.5	2.4	2.2	2.1	2.2	2.1	2.1	2.1

			•											
DATE	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14
TIME														
0130	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
0300														
0430														2.0
0600														1.9
0730 0900														1.9
1030						2.0								2.0
1200			2.0			1.9								2.0
1330			1.9											
1500														
1630						1.9								
1800						2.0								
1930	2.1		1.9											
2100	2.0		2.0											
2230 2400	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
DATE	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28
TIME 0130	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
0300	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
0430														
0600						2.1								
0730						2.0								
0900														2.1
1030													2.0	2.2
1200													2.1	
1330														
1500 1630					2.0									
1800					2.1									
1930														
2100														
2230														
2400	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2
DATE	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11
TIME														
0130	2.2	2.2	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1				
0300	2.2													
0430	2.1	2.2			2.1			0 1						
0600 0730	2.1	2.1			2.1			2.1						
0900	2.2				2.0			2.2						
1030	2.2						2.1							
1200							2.2							
1330														
1500														
1630														
1800						2.0	2.2	2.2		2.1				
1930 2100						2.1	2.1	2.1		Data	ends.			
2230								۷.1						
2400	2.2	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1					

LAKE MICHIGAN - STATION 10. Depth 10 m.
Start 25 November 1963, 1600 CST; end 15 April 1964, 0900 CST.
Instrument serial no. 252, film record 20,050. Initial cal. 0°C; final cal. -0.7°C.

DATE	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8
0130 0300		9.0	9.0	8.9	8.9	9.0	8.8	8.7 8.7	8.2	8.0	7.9	7.8	7.1 7.1	7.4
0430 0600 0730					8.9 8.8		8.8	8.6 8.6				7.8 7.6	7.0	7.4 7.3
0900 1030 1200					8.8		8.9	8.5			7.9 7.8	7.5 7.1 7.1	7.0 7.1 7.2	7.3 7.0 6.8
1330 1500	0.0				8.9	9.0 8.9	8.9	8.4	8.2			7.0	7.3 7.3 7.4	6.8
1630 1800 1930	9.0				8.9 9.0		8.8	8.3	8.1 8.0	8.0			7.4	6.5 6.4
2100 2230 2400	9.0	9.0	9.0 8.9 8.9	8.9	9.0	8.9 8.8 8.8	8.8	8.3 8.2	8.1 8.0 8.0	7.9 7.9	7.8	7.0 7.1 7.1	7.4	6.3 6.2 6.2
DATE	12-9			12-12		12-14	12-15	12-16	12-17	12-18	12-19		12-21	12-22
0130 0300	6.2	6.2	6.1	6.0	5.5	5.4	5.7	5.2	5.1	5.1	5.1	5.1	4.9	4.4
0430 0600	6.1	6.2	6.1 6.2											4.4 4.3
0730 0900 1030	6.1 6.0 6.0	6.8 6.8 6.6			5.5		5.7 5.6 5.5					5.1 5.0	4.9	
1200 1330 1500	6.1	6.4 6.1 6.1	6.2 6.1	6.0 5.9 5.8		5.4 5.5	5.5 5.4 5.3					5.0	4.8	4.3 4.2
1630 1800 1930	6.1 6.2	6.0		5.7 5.6 5.5	5.5 5.4	5.6 5.7 5.8	5.1	5.2 5.1				4.9	4.8 4.7 4.6	
2100 2230	()	6.0	6.1			5.8 5.7	5.1	5.1	5.1	5.1	5.1	4.0	4.6 4.5	4.2
2400 DATE	6.2 12-23	6.1 12-24	6.0 12-25	5.5 12-26	5.4 12-27		12-29		12-31	1-1	1-2	4.9 1-3	4.4 1-4	1-5
TIME 0130 0300	4.2	4.1	4.1	4.1	4.1	3.8	3.4	3.2	3.1	3.1	3.1	3.1	3.1	3.1
0430 0600 0730 0900						3.8 3.7	3.4 3.3 3.3 3.2	3.2 3.1						
1030 1200 1330						3.7								
1500 1630 1800	4.2 4.1				4.1 4.0	3.5 3.5 3.4								
1930 2100 2230					4.0 3.9									
2400	4.1	4.1	4.1	4.1	3.9	3.4	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1

			•		•									
DATE	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19
TIME														
0130	3.2	3.2	3.2	3.0	3.0	2.9	2.7	2.6	2.3	2.3	2.3	2.3	2.3	2.3
0300														
0430														
0600			2.0			2.9		2 (
0730			3.2 3.1			2.8		2.6						
0900 1030			3. I		3.0			2.3						
1200					2.9									
1330					2.7	2.8								
1500						2.7								
1630							2.7							
1800							2.6							
1930														
2100			3.1					2.5						
2230			3.0					2.4						
2400	3.2	3.2	3.0	3.0	2.9	2.7	2.6	2.3	2.3	2.3	2.3	2.3	2.3	2.3
DATE	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2
TIME														
0130	2.4	2.4	2.4	2.5	2.6	2.6	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.2
0300						2.6								
0430						2.5								2.2
0600						2.5								2.3
0730				2.5		2.4								
0900 1030				2.6										
1200														
1330														
1500													2.3	
1630			2.4										2.2	
1800			2.5											
1930							2.4				2.3			
2100							2.3				2.4			
2230														
2400	2.4	2.4	2.5	2.6	2.6	2.4	2.3	2.3	2.3	2.3	2.4	2.3	2.2	2.3
DATE	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16
TIME														2.0
0130	2.4	2.4	2.3	2.3	2.0	1.5	2.1	2.3	2.3	1.5	2.4	2.3	1.5	2.2
0300					1.8		2.2					0 0		
0430					1.6	1 5	2.2		0 0	1 5		2.3		
0600					1.6 1.5	1.5 1.6	2.3		2.3	1.5 1.7		2.2		2.2
0730 0900					1.3	1.0			2.2	1.8		2.0		2.1
1030						1.6			2.1	1.8		1.8		2.1
1200						1.7			2.0	1.9		1.6	1.5	2.1
1330						1.,				2.0		1.6	1.6	2.0
1500									2.0	2.1		1.5	1.7	2.0
1630		2.4				1.7			1.9	2.1			1.8	1.9
1800		2.3				1.8			1.8	2.2			1.9	
1930									1.7		2.4		2.0	1.9
2100				2.3		1.8			1.6	2.2	2.3		2.1	1.8
2230				2.2		1.9			1.5	2.3			2.2	1.8
2400	2.4	2.3	2.3	2.1	1.5	2.0	2.3	2.3	1.5	2.3	2.3	1.5	2.2	1.7

			, -		•									
DATE	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	2-29	3-1
TIME														
0130	1.8	1.6	1.0	1.6	2.0	1.9	1.8	1.6	1.7	1.7	1.7	1.7	1.9	1.9
0300			0.9											
0430		1.6	0.8									1.7		
0600	1.8	1.5	0.7				1.8					1.8		
0730	1.7	1.5	0.6	1.6			1.7							
0900		1.4	0.6	1.7				1.6						
1030			0.5					1.7						1.0
1200		1.4		1.7		1.0								1.9
1330 1500	1.7	1.3	0.5	1.8	2.0	1.9 1.8								2.1
1630	1.6		0.6	1.8	1.9	1.0								
1800	1.0		0.6	1.9	1.9		1.7							
1930		1.3	0.7	1.,,			1.6							
2100		1.4	1.1	1.9										
2230		1.3	1.3	2.0										
2400	1.6	1.1	1.5	2.0	1.9	1.8	1.6	1.7	1.7	1.7	1.7	1.8	1.9	2.1
DATE	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15
TIME		2-3	2-4	2-3	2-6	2-1	2-0	2-9	2-10	2-11	2-12	2-13	2-14	2-15
0130	2.3	2.5	2.4	2.3	2.5	2.0	2.0	1.9	1.9	2.0	2.2	2.2	2.0	2.0
0300	2.5			2.5	2.0	2.0	2.0			2.0			2.0	2.0
0430	2.3													
0600	2.4				2.5				1.9	2.0				
0730				2.3	2.4				2.0	2.1				
0900				2.4	2.4		2.0					2.2		
1030					2.3		1.9					2.1		
1200					2.2									
1330					2.2									
1500		2.5	2.4		2.1			1.9						
1630	2.4	2.4	2.3					2.0						2.0
1800	2.5				2.1							2.1		1.9
1930				2.4	2.0					2.1		2.0		
2100				2.5						2.2				
2230	2 5	2.4	2 2	2 5	2.0	2.0	1.9	2.0	2.0	2 2	2.2	2.0	2.0	1.0
2400	2.5		2.3	2.5		2.0		2.0		2.2				1.9
DATE	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29
TIME 0130	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.6	1.7	1.8	2.0
0300	2.0	1.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1./	1.0	1./	1.0	2.0
0430														
0600		1.9							1.8					
0730	2.0	1.8				1.8			1.7					
0900	1.9	1.0				1.7			1.,		1.6			2.0
1030						-•,					1.7			
1200										1.7				Data
1330						1.7				1.6				ends.
1500						1.8				-				
1630														
1800														
1930														
2100													1.8	
2230													1.9	
2400	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.6	1.7	1.7	1.9	

LAKE MICHIGAN - STATION 10. Depth 15 m. Start 25 November 1963, 1600 CST; end 15 April 1964, 0900 CST. Instrument serial no. 234, film record 20,051. Initial cal. 0°C; final cal. 0°C.

DATE	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8
0130		9.4	9.4	9.5	9.5	9.4	9.2	9.1	9.0	8.8	8,8	8.4	8.0	8.0
0300 04 3 0														
0600											8.8	8.4		
0730											8.7	8.3		
0900 1030					9.5 9.4						8.6 8.5	8.1		8.0
1200					7.4			9.1			0.5	0.0		7.9
1330								9.0						
1500						9.4			9.0					
1630 1800	9.3 9.4					9.3			8.9 8.8					7.9 7.8
1930	7.4		9.4						0.0		8.5			7.6
2100			9.5			9.3					8.4			7.5
2230 2400	9.4	9.4	9.5	9.5	9.4	9.2	9.2	9.0	8.8	8.8	8.4	8.0	0.0	7.4
DATE	12-9	12-10				12-14					12-19		8.0	7.4
TIME	12)	12 10	10 11	12 12		12 17	12 17	12 10	12-17	12-10	12-17	12-20	14-21	12-22
0130 0300	7.3	7.2	7.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.9
0430	7.3									6.0				5.9
0600 0730	7.2 7.1									5.9				5.8
0900	/			7.0						5.9			6.0	
1030				6.9						6.0			5.9	
1200 1330														5.8
1500														5.7 5.6
1630														3.0
1800		7.2		6.9										
1930 2100		7.1 7.0		6.7 6.5										
2230		7.0		6.3										
2400	7.1	7.0	7.0	6.1	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.9	5.6
DATE	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5
TIME 0130	5.5	5.4	5.0	5.0	5.0	4.7	4.2	4.0	4.0	3.9	3.9	3.8	3.8	3.8
0300						4.7								
0430	5.5					4.6								
0600 0730	5.4					4.5					3.9 3.8			
0900											3.0			
1030														
1200 1330						4.5			4.0 3.9					
1500						4.4			3.9					
1630									3.9					
1800 1930		E /				4.4 4.3	4.2		4.0					
2100		5.4 5.3			5.0	4.3	4.1		4.0					
2230		5.1			4.9	4.3	4.1		3.9					
2400	5,4	5.0	5.0	5.0	4.8	4.2	4.0	4.0	3.9	3.9	3.8	3.8	3.8	3.8

LAKE MICHIGAN, STATION 10, 15 m continued.

DATE	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19
TIME 0130 0300	3.8	3.8	3.9	3.9	3.4	3.2	3.2	3.2	3.2	3.1	2.8	2.9	2.9	2.9
0430 0600 0730					3.4					3.0				
0900 1030					3.3 3.2					0.0				
1200 1330 1500		3.8 3.9							3.2 3.1	3.0 2.9				2.9
1630 1800		•••		3.9 3.7 3.7							2.8 2.9			2.8
1930 2100 2230				3.4						2.9 2.8				
2400	3.8	2.9	3.9	3.4	3.2	3.2	3.2	3.2	3.1	2.8	2.9	2.9	2.9	2.8
DATE TIME	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2
0130 0300 0430	2.8	2.8	2.9	2.9	2.9	2.8	2.8	2.8	2.8	2.6 2.5	2.3	2.3	2.3	2.3
0600 0730 0900					2.9 2.8				2.8 2.7	2.5 2.4				
1030 1200 1330 1500									2.7					
1630 1800 1930 2100		2.8							2.7 2.6	2.4				
2230 2400	2.8	2.9	2.9	2.9	2.8	2.8	2.8	2.8	2.6	2.3	2.3	2.3	2.3	2.3
DATE	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16
TIME 0130 0300	2.3	2.3	2.2	2.2	2.2	2.2	2.2	1.9	1.8	1.8	1.9	1.9	1.8	1.7
0430 0600										1.8 1.9				
0730 0900 1030 1200		2.3				2.2 2.1	2.2 2.1 2.0							
1330 1500 1630 1800						2.1	2.0 1.9	1.9 1.8						1.7 1.8
1930 2100 2230 2400	2.3	2.2	2.2	2.2	2.2	2,2	1.9	1.8	1.8	1.9	1,9	1.9 1.8 1.8	1.8 1.7 1.7	1.8

LAKE MICHIGAN, STATION 10, 15 m continued.

DATE	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	2-29	3-1
TIME						1 (1.5	. ,	1 /
0130 0300	1.8	1.8	1.8 1.8	1.5	1.6	1.6	1.5	1.5	1.5	1.5	1.6	1.5 1.5	1.4	1.4
0430			1.7						1.5			1.4		
0600			1.7						1.4			1.4		1.4
0730									1.7					1.5
0900			1.7											1,3
1030			1.6											
1200					1.6	1.6				1.5				1.5
1330					1.5	1.5				1.6	1.6			1.6
1500									1.4		1.5			
1630					1.5				1.5					
1800					1.6									
1930														
2100			1.6											1.6
2230			1.5											1.7
2400	1.8	1.8	1.5	1.5	1.6	1.5	1.5	1.5	1.5	1.6	1.5	1.4	1.4	1.7
DATE	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15
TIME									3-10	3-11	3-12	3-13	3-14	
TIME 0130	1.7	3-3 1.6	1.4	1.5	1.9	1.8	1.7	1.8	3-10	3-11	3-12	3-13	3-14	3-15
TIME 0130 0300				1.5					3-10	3-11	3-12	3-13	3-14	
TIME 0130 0300 0430		1.6		1.5					3-10	3-11	3-12	3-13	3-14	
TIME 0130 0300 0430 0600		1.6		1.5					3-10	3-11	3-12	3-13	3-14	
TIME 0130 0300 0430 0600 0730		1.6		1.5				1.8	3-10	3-11	3-12	3-13	3-14	
TIME 0130 0300 0430 0600 0730 0900		1.6		1.5 1.5 1.6				1.8		3-11	3-12	3-13	3-14	
TIME 0130 0300 0430 0600 0730 0900 1030		1.6 1.6 1.5		1.5 1.5 1.6				1.8		3-11	3-12	3-13	3-14	
0130 0300 0430 0600 0730 0900 1030 1200		1.6 1.6 1.5		1.5 1.5 1.6				1.8		3-11	3-12	3-13	3-14	
0130 0300 0430 0600 0730 0900 1030 1200 1330	1.7	1.6 1.6 1.5		1.5 1.5 1.6				1.8		3-11	3-12	3-13	3-14	
0130 0300 0430 0600 0730 0900 1030 1200		1.6 1.6 1.5		1.5 1.5 1.6				1.8		3-11	3-12	3-13	3-14	
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500	1.7	1.6 1.6 1.5		1.5 1.5 1.6 1.6 1.7		1.8		1.8		3-11	3-12	3-13	3-14	
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630	1.7	1.6 1.6 1.5		1.5 1.5 1.6 1.6 1.7		1.8	1,7	1.8		3-11	3-12	3-13	3-14	
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800	1.7	1.6 1.6 1.5		1.5 1.5 1.6 1.6 1.7		1.8	1.7	1.8		3-11	3-12	3-13	3-14	
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930	1.7	1.6 1.6 1.5		1.5 1.5 1.6 1.6 1.7	1.9	1.8	1.7	1.8		3-11	3-12	3-13	3-14	

LAKE MICHIGAN - STATION 10. Depth 22 m.
Start 25 November 1963, 1600 CST; end 15 April 1964, 0900 CST.
Instrument serial no. 279, film record 20,052. Initial cal. 0°C; final cal. -0.2°C.

	1110 6 1 01	iche se	oriur ,		,	. 2000.	20,		IIII CIG.	· cui.	٠,,	Landi	care	0,2 0,
DATE	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8
TIME														
0130 0300		9.9	9.9	9.8	9.5	9.8	9.3 9.2	9.2	9.0	8.8	8.7 8.7	8.3	7.8	8.1
0430				9.8			9.4	9.2			8.6			8.2
0600			9.9	9.7	9.5	9.8		9.1			8.5		7.8	8.2
0730			9.8	9.6	9.4	9.9		,,,			•••		7.9	8.1
0900				9.5	9.3									
1030				9.2	9.3									
1200				9.2	9.2							8.3		
1330				9.4	9.3	0.0				0.0	8.5	8.2		8.1
1500 1630	10.0			9.4 9.5	9.3	9.9 9.8		9.1	9.0	8.8 8.7	8.4	8.1 8.0	7.9	7.9 7.8
1800	10.0			9.3	9.4	9.0		9.0	8.9	0.7		0.0	8.0	7.6
1930					9.6	9.8		9.0	8.9		8.4		0.0	7.5
2100	10.0				9.7	9.7			8.8		8.3	8.0		7.4
2230	9.9				9.8	9.6						7.9		7.2
2400	9.9	9.9	9.8	9.5	9.8	9.4	9.2	9.0	8.8	8.7	8.3	7.9	8.0	7.2
DATE	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22
TIME														
0130 0300	7.1	7.1	6.8	7.1	6.4 6.2	6.1	6.1 6.3	6.0	5.9 5.9	5.7	5.6	5.5	5.3	5.2
0430				7.1	6.1		6.6		5.8	5.7		5.5	5.2	
0600			6.8	7.0	0.1		6.7		3.0	5.6	5.6	5.4	5.3	5.2
0730			6.9			6.1	6.8	6.0			5.8		5.3	5.1
0900		7.1	7.0			6.0	6.8	5.9			5.7		5.2	
1030		7.0	7.1				6.6		5.8					
1200		7.1					6.5		5.9	5.6	5.7	5.4		
1330	7.1	7.3				6.0	6.4		5.8	5.7	5.6	5.5		
1500 1630	7.0	7.3 7.2	7.1 7.2	7.0		6.1	6.3		5.7	5.7	5.5	5.5 5.4	5.2	5.1 5.0
1800		1.2	1.2	6.9		6.0	6.2			5.8		5.5	5.3	3.0
1930		7.2				6.0	0.2			5.7	5.5	3,3	5.5	
2100		7.1				6.1	6.2			5.6	5.6		5.3	
2230	7.0	7.0		6.9			6.1					5.5	5.2	
2400	7.1	6.9	7.2	6.8	6.1	6.1	6.1	5.9	5.7	5.6	5.6	5.4	5.2	5.0
DATE	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5
TIME	F 0	5.0	, ,	4.9		4.8	4.2	4.1	4.0	4.0	4.0			4.0
0130 0300	5.0	3.0	4.9	4.9	4.9	4.7	4.2	4.1	4.0	4.0	4.0	4.0	4.0	4.0
0430						4.7	4.2							
0600						4.6	4.1	4.1						
0730					4.9			4.0						4.0
0900					4.8									3.9
1030		5.0				4.6								
1200		4.9				4.5								
1330						4.4								
1500 1630						4.4								
1800						4.3								
1930							4.1							
2100						4.3	4.0				4.0			
2230						4.2					3.9			
2400	5.0	4.9	4.9	4.9	4.8	4.2	4.0	4.0	4.0	4.0	3.9	4.0	4.0	3.9

DATE	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19
TIME 0130	3.9	4.0	4.0	3.9	3.8	3.8	3.6	3.2	3.2	3.1	3.0	3.1	3.1	3.1
0300	3.,	-7.0	-7.0	3.,	3.0	3.0	3.5	3.2	3.2	3.1	3.0	3.1	3.1	3.1
0430							3.4						3.1	
0600	3.9						3.3						3.0	
0730 0900	4.0					3.8 3.7	3.2		3.2		3.0			
1030						3.7		3.2	3.1		3.1			
1200								3.3						
1330						3.7								3.1
1500						3.6				3.1				3.0
1630			4.0				2.0	2 2		3.0				
1800 1930			3.9	3.9			3.2 3.1	3.3					3.0 3.1	
2100				3.8			3.1	3.2					3.1	
2230														
2400	4.0	4.0	3.9	3.8	3.8	3.6	3.1	3.2	3.1	3.0	3.1	3.1	3.1	3.0
DATE	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2
TIME 0130	3.0	3.0	3.1	3.1	3.0	3.1	3.1	3.0	3.0	2.8	2.7	2.7	2.6	2.9
0300	5,0	5.0	3.1	311	5.0	3.1	3.1	3.0	3.0	2.0	2.,	2.,	2.0	2.7
0430														
0600				0.1						2.8				
0730 0900				3.1 3.0	3.0					2.7		2.7	2.6	2.9
1030				3.0	3.1							2.6	2.7	2.8
1200									3.0			2.0		2.0
1330									2.9					
1500													2.7	
1630 1800		3.0											2.8	
1930		3.1												2.8
2100													2.8	2.7
2230							3.1		2.9				2.9	
2400	3.0	3.1	3.1	3.0	3.1	3.1	3.0	3.0	2.8	2.7	2.7	2.6	2.9	2.7
DATE	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16
0130	2.7	2.6	2.9	3.0	2.8	2.8	2.8	2.1	2.3	2.8	2.8	2.7	2.1	2.9
0300												2.6	2.4	
0430							2.8				2.8	2.5	2.4	
0600 0730			2.9		2.8		2.7				2.9	2.4	2.5	
0900			3.0		2.7		2.6		2.3		2.9	2.3	2.6	
1030			5.0			2.8			2.4		2.8	2.3	2.7	
1200		2.6				2.9			2.5			2.2		
1330	0 7	2.7		3.0			2.6		2.6			2.2	2.7	
1500 1630	2.7	2.7		2.9	2.7	2.9	2.5	2.1			2.8	2.1	2.8	2.9
1800	2.0	2.8			2.8	2.8	2.4	2.5			2.8			2.2
1930							2.3		2.6				2.8	
2100				2.9			2.2		2.7		2.8		2.9	2.2
2230 2400	2.6	2.8	2.0	2.8	2.8	2.8	2.2	2.3	2.8	2.8	2.7	2.1	2.9	2.4
2400	2.6	2.9	3.0	4.9	4.0	4.0	4.4	2.5	2.0	2.0	2.1	2.2	4.7	2.4

DATE	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	2-29	3-1
0130 0300 0430	2.4	2.3	2.1	2.1	1.4	2.2	2.4	2.5	2.4	2.3	2.4	2.3	2.3	2.5
0600 0730 0900		2.3		1.9 2.1 1.9	1.2 1.1 1.1 1.2	2.2 2.3			2.4			2.3 2.2		
1030 1200 1330	2.4 2.5	2.2 2.1		1.9 2.0 2.1	1.2 1.3 1.4 1.5	2.3 2.4							2.3	
1500 1630 1800	2.5			2.1	1.7 1.9 2.1			2.5 2.4		2.3	2.4 2.3		2.4	
1930 2100 2230	2.4			2.1 1.8 1.8	2.1					2.4		2.2	2.4 2.5	
2400	2.4	2.1	2.1	1.5	2.2	2.5	2.4	2.4	2.3	2.4	2.3	2.3	2.5	2.5
DATE TIME	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15
0130 0300	2.5	2.4	2.8	2.6	2.7	2.4	2.4	2.5 2.4	2.3	2.3	2.3	2.3	2.4	2.4
0430 0600 0730 0900		2 /	3.0 3.0 2.9	2.6 2.7			2.4 2.5	2.3	2.3					
1030 1200 1330		2.4 2.5 2.7 2.8	2.7 2.7 2.9 2.8		2.7 2.6	2.4 2.3	2.5 2.6							
1500 1630 1800		2.9	2.8		2.6 2.5	2.3		2.3	2.2			2.3 2.4		
1930 2100 2230		2.9	2.7			2.4		2.4	5					
2400	2.5	2.9	2.7	2.7	2.5	2.4	2.6	2.4	2.3	2.3	2.3	2.4	2.4	2.4
DATE TIME	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29
0130 0300 0430	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.1 2.2	2.2	2.2	2.1	1.8
0600 0730 0900 1030	2.4 2.3											2.2		1.8 1.7
1200 1330 1500													2.1 2.0	1.7 1.6
1630 1800 1930 2100													2.0 1.9	
2230 2400	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	1.9	1.6

LAKE MICHIGAN, STATION 10, 22 m continued.

DATE	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12
TIME 0130 0300	1.6	1.7	1.6	1.6	2.0	2.1								
0430		1 7				2 1								
0600		1.7				2.1								
0730	1.6	1.6			2.0	Data								
0900	1.7				2.1	ends								
1030														
1200														
1330														
1500														
1630														
1800														
1930														
2100				1.6										
2230				1.7										
2400	1.7	1.6	1.6	1.9	2.1									

LAKE MICHIGAN - STATION 10. Depth 30 m.

Start 25 November 1963, 1600 CST; end 15 April 1964, 0900 CST.

Instrument serial no. 244, film record 20,053. Initial cal. ; final cal. 0°C.

DATE	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8
TIME														
0130		9.2	9.1	9.0	9.0	9.1	8.9	8.9	8.6	8.2	8.0	7.9	7.1	7.8
0300				9.0									7.1	
0430		9.2		8.9	9.0				8.6				7.0	
0600		9.1		8.8	8.9		8.9		8.5				7.0	
0730				8.9			9.0		8.5				7.1	
0900		9.1	9.1		8.9				8.4			7.9		7.8
1030		9.0	9.0		9.0					8.2		7.8		7.6
1200		9.1		8.9				8.9	8.4	8.1		7.6		7.1
1330			9.0	9.0				8.8	8.3	8.0		7.3	7.1	7.0
1500			8.9			9.1			8.3	7.9		7.1	7.2	6.9
1630	9.3		9.0			9.0			8.2	7.9		7.1	7.3	
1800	9.0						9.0	8.8		8.0		್ಪ7.0		
1930	9.3						8.9	8.7				7.1	7.3	
2100	9.3												7.5	
2230	9.2				9.0	9.0		8.7					7.7	6.9
2400	9.2	9.1	9.0	9.0	9.1	8.9	8.9	8.6	8.2	8.0	8.0	7.1	7.8	6.8

DATE	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22
TIME					r 0		·		r 0	- 1	F 0			, ,
0130 0300	6.7 6.6	6.6 6.5	6.0	6.3 6.2	5.8	5.6	5.9 6.0	5.5 5.5	5.2	5.1 5.1	5.0 5.0	5.0	4.9	4.8
0430	6.5	6.4	6.0	6.1			0.0	5.4		5.0	5.1			
0600	6.5	6.3	6.1	0.1	5.8			J.7		3.0	5.1			
0730	6.4	6.2	6.2		5.7		6.0			5.0	5.0			
0900	6.3	6.3	6.4				5.9		5.2	5.1				
1030	6.2	6.6	6.6						5.1					4.8
1200	6.1	6.9	6.8	6.1				5.4		5.1				4.7
1330		6.9	6.8	6.0		5.6		5.3		5.0	5.0			4.7
1500		6.8	6.7			5.7					5.1	- 0		4.6 4.6
1630 1800	6.1	6.4	6.7 6.6									5.0 4.9		4.5
1930	6.3	6.1	6.6	6.0			5.9	5.3			5.1	4.9		4.5
2100	6.4	6.1	6.5	5.9		5.7	5.7	5.2			5.0			4.4
2230	6.6	6.0	6.5	5.9	5.7	5.8	5.6	3.2			3.0			
2400	6.6	6.0	6.4	5.8	5.6	5.9	5.5	5.2	5.1	5.0	5.0	4.9	4.9	4.4
DATE	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5
TIME														
0130	4.4	4.2	4.1	4.0	4.0	4.0	3.7	3.3	3.1	3.0	3.0	3.0	3.0	3.0
0300						3.9	3.7							
0430							3.6	2 2						
0600 0730	4.4 4.3							3.3						
0900	4.3			4.0			3.6	3.2						
1030		4.2		4.1			3.5							
1200		4.1		4.0		3.9								
1330						3.8								
1500	4.3						3.5							
1630	4.2		4.1				3.4	3.2						
1800			4.0					3.1						
1930		4.1												
2100 2230		4.0				3.8			3.1					
2400	4.2	4.0	4.0	4.0	4.0	3.7	3.4	3.1	3.0	3.0	3.0	3.0	3.0	3.0
DATE	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19
TIME	1-0		1-0	1-9	1-10	1-11	1-12	1-13	1-14	1-13	1-10	1-17	1-10	1-15
0130	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.7	2.7	2.3	2.2	2.2	2.1	2.1
0300 0430					3.0				2.7					
0600					2.9		2.9		2.6					
0730					2.0		2.8		2.0	2.3				
0900							2.0			2.2				
1030									2.6				2.1	
1200									2.5				2.2	
1330														
1500														
1630							2.0							
1800 1930							2.8		2.5				2.2	
2100							2.1		2.4				2.1	
2230									_•.			2.2		
2400	3.0	3.0	3.0	3.0	2.9	2.9	2.7	2.7	2.4	2.2	2.2	2.1	2.1	2.1

							1.00	1 0-	1 00	1 00	1 00	1 0-	0.1	
DATE TIME	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	.1-29	1-30	1-31	2-1	2-2
0130	2.1	2.1	2.2	2.1	2.1	2.3	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.0
0300			2.2											
0430			2.1											
0600														
0730 0900					2.1									
1030					2.2									
1200														
1330							2.3							
1500							2.2							
1630		2.1												
1800		2.2												
1930 2100							2.2							
2230					2.2		2.1		2.1					
2400	2.1	2.2	2.1	2.1	2.3	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0
DATE	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16
TIME								1.0	0.0	0.1	^ 1	2.0		
0130 0300	2.0	2.0	2.1	2.1	2.0	2.0	2.0	1.8	2.0	2.1	2.1	2.0 1.9	1.8 1.9	2.1
0430												1.9	1.9	
0600												1.9	2.0	
0730												1.8		
0900												1.7		
1030								1.0				1.6		0 1
1200				2.1			2.0	1.8 1.9				1.4 1.3		2.1
1330 1500		2.0		2.0			1.9	1.9				1.2		2.0
1630		2.1		2.0			1,,,						2.0	
1800								1.9			2.1		2.1	
1930								2.0	2.0		2.0			
2100							1.9		2.1			1.2		2.0
2230 2400	2.0	2.1	2.1	2.0	2.0	2.0	1.8 1.8	2.0	2.1	2.1	2.0	1.4 1.7	2.1	1.9
DATE	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	2-29	3-1
TIME	2-17	2-10	2-19	2-20	2-21	2-22	2-23	2-24	2-23	2-20	2-21	2-20		
0130	1.9	1.3	1.9	1.5	1.2	1.0	1.0	1.8	1.9	1.9	1.9	1.8	1.9	1.7
0300	1.8			1.4		1.2	1.1 1.2	1.8 1.9			1.9		1.9 1.8	
0430 0600	1.6 1.4	1.3		1.4		1.2	1.2	1.5			1.8		1.0	
0730	1.3	1.6		1.3	1.2	1.0					1.0			
0900	1.2	1.8			1.3									
1030					1.1	1.0								
1200			1.9		1.2	0.9	1.2							
1330		1.8	1.8	1.3 1.2	1.4 1.6	0.7 0.5	1.3 1.5					1.8 1.9		1.7 1.8
1500 1630		1.8	1.8	1.2	1.3	0.2	1.6					1.,		1.0
1800		1.0	1.7		1.1	0.1	_,,							
1930			1.6		1.6	0.2	1.6							
2100			1.6		1.2	0.3	1.7						1.0	1.0
2230	1.2	1.0	1.5	1 0	1.1	0.4	1.8 1.8	1.9	1.9	1.9	1.8	1.9	1.8 1.7	1.8 1.9
2400	1.3	1.9	1.5	1.2	1.2	0.9	T . O	1.9	1.9	1.9	1.0	1.9	1./	1.0

LAKE MICHIGAN, STATION 10, 30 m continued.

DATE	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15
0130 0300 0430 0600 0730 0900 1030	1.9	1.9	1.9	2.0 2.0 2.1	2.1	2.1								
1200 1330 1500 1630 1800 1930 2100 2230 2400	1.9 2.0 2.0 1.9	1.9	1.9	2.1 2.0 2.1 2.2 2.2 2.1 2.0 2.1	2.1	2.1 Data Ends								

LAKE MICHIGAN - STATION 12. Depth 10 m. Start 18 November 1963, 1400 CST; end 2 April 1964, 1200 CST. Instrument serial no. 128, file record 20,059. No temperature correction,

DATE 11-18 11-19 11-20 11-21 11-22 11-23 11-24 11-25 11-26 11-27 11-28 11-29 11-30 12-1 TIME 0130 10.3 9.2 9.3 9.5 8.8 8.4 8.3 8.2 8.1 8.0 7.5 7.3 9.4 0300 9.2 9.3 9.5 8.7 8.3 7.9 7.4 9.4 8.6 7.8 7.4 0430 10.3 9.1 9.4 0600 10.2 9.1 9.4 9.3 8.4 8.2 7.7 7.3 0730 10.2 9.4 9.2 9.3 9.3 8.3 8.3 7.6 9.3 0900 10.1 9.2 8.1 1030 10.0 9.1 8.0 1200 9.0 8.3 7.6 1330 9.1 8.4 8.3 7.7 3.3 1500 10.3 10.0 9.3 9.2 8.4 8.2 7.8 1630 9.9 9.3 9.2 9.1 8.1 7.7 9.8 8.3 1800 9.2 9.3 7.6 1930 9.6 9.4 8.4 8.2 7.5 2100 9.2 9.5 9.1 8.3 9.4 2230 9.1 9.0 2400 10.3 9.4 9.2 9.2 9.5 9.0 8.4 8.3 8.2 8.0 7.5 8.1 7.3 7.3

DATE	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15
TIME 0130	7.3	7.3	7.3	7.0	6.4	6.4	6.3	5.3	6.1	5.6	5.5	4.3	3.3	3.5
0300		7.3			6.4		6.2	5.2		5.6	5.5	4.3		3.4
0430		7.2	7.3		6.3		5.6	5.3	6.1	5.7	5.4	3.9	3.3	3.3
0600 0730			7.2	7.0	6.2 6.1		5.3 5.3	5.3 5.4	6.0	5.8	5.4 5.3	3.5	3.2 3.2	
0900				6.9	5.8		5.4	5,5			٠,٥	3.3	3.0	
1030				6.9	5.8	6.4	5.6	5.6				3.3	2.8	3.3
1200				6.8	6.0	6.3		5.8	6.0		5.3		3.1	3.2
1330		7.2		6.7	6.2			5.9	5.9		5.2		2.9	3.2
1500 1630		7,3	7 0	6.6	6.3	6.3	= 6	5.8	E 0		4.7		2.8	3.1
1800			7.2 7.1			6.2 6.1	5.6 5.5	5.7 5.7	5.9 5.8		4.4		3.1 3.5	3.1 3.0
1930			, • ±	6.6	6.3	6.0	5.4	5.8	5.9	5.8			3.9	2.9
2100				6.5	6.4	6.1		5.9	5.9	5.7			4.1	2.7
2230						6.3		6.0	5.8	5.6			3.9	2.4
2400	7.3	7.3	7.1	6.5	6.4	6.3	5.4	6.1	5.6	5.5	4.4	3.3	3.6	2.3
DATE	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
0130	2.3	2.7	1.7	1.6	1.7	2.1	2.1	1.4	1.3	0.4	1.2	0.9	0.1	0.2
0300		2.6	1.7	1.5	2.0	2.0	2.2		1.2	0.6	1.1	0.8	0.1	0.3
0430		2.5	2.2	1.4	2.2	1.8	2.3		1.3	0.9	1.0	0.7		
0600	2.3	2.5	2.3	1.4	2.3	1.6			1.2	1.2	0.9	0.5	0.1	
0730 0900	2.7 2.7	2.4		1.3 0.7		1.5 1.6		1.4	0.9	1.3		0.5	0.2	
1030	2.8	2.2		0.7		1.7	2.3	1.5 1.6	0.5 0.4		0.9	0.4	0.2	0.3
1200	2.9	2.0		0.9		1.9	2.2	1.6	0.3		1.1		0.5	0.2
1330	3.0	1.9	2.3	1.1		2.0	2.1	1.7			1.2	0.4		0.2
1500	2.9	2.0	2.2	1.2		2.1	2.0	1.9			1.3	0.3	0.3	0.1
1630		2.0	2.1			2.1		1.9			1.3		0.2	0.0
1800 1930	2.9 2.8	2.1	2.0 1.9	1.2 1.3	2.3	1.9 1.7	2.0 1.9	1.8 1.5			1.2 1.2			
2100	2.7	2.2	1.8	1.3	2.2	1.9	1.7	1.3		1.3	1.1	0.3		0.0
2230	2.,	1.9	1.7	1.4	2.2	2.0	1.5	1.5		1.2	1.0	0.2		0.1
2400	2.7	1.7	1.6	1.7	2.1	2.1	1.4	1.3	0.3	1.2	0.9	0.1	0.2	0.1
DATE	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
TIME	0.1	0.5	0.0	0 /		1 2	1.0	1 0	1.0	0 /	0.0	0.0	0.1	0.6
0130 0300	0.1	0.5 0.6	0.3	0.4	1.4	1.3 1.2	1.2 1.1	1.2	1.2	0.4	0.3	0.2	0.1	0.6 0.9
0430	0.3	0.8		0.4		1.1	1.1			0.3				1.1
0600	***	0.9		0.4		1.0				•••			0.1	1.2
0730	0.3	1.0		0.3	1.4								0.2	1.3
0900	0.4	1.1	0.3	0.4	1.3									
1030		1.1	0.5	0.5		1.0	1.1			0 2	0.3	0.0	0.2	
1200 1330		1.2 1.0	0.5	0.7 0.9		1.0	1.2		1.2	0.3	0.3	0.2	0.3	
1500		1.1	0.8	1.1		0.5			1.1	0.2	0.1	0.0		
1630		0.9	0.9	1.2					1.0	0.2	0.1	0.1	0.3	
1800		0.7	0.8	1.3		0.9			0.9	0.3	0.2		0.4	
1930 2100		0.5	0.7 0.5			1.0 1.2			0.8		0.3			
2230	0.4	0.4	0.4	1.3		1.2			0.5		0.3		0.4	
2400	0.5	0.3	0.4	1.4	1.3	1.2	1.2	1.2	0.4	0.3	0.2	0.1	0.5	1.3

DATE	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26
TIME 0130 0300	1.3	0.4	0.2	0.2	0.4	0,0	0.0	0.1	0.1	0.1	0.2	0.3	0.3	0.2
0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930	1.3 1.2 0.5 0.2 0.2 0.1	0.3	0.2	0.2 0.3 0.3	0.4 0.3 0.2 0.1		0.0 0.1			0.1	0.2		0.3	0.2 0.0 0.0 0.1 0.3 0.4
2100 2230	0.0		0.3		0.1									0.5
2400	0.3	0,2	0.2	0.4	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4
DATE	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
0130 0300 0430	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3	1.0 1.1 1.2
0600 0730 0900 1030 1200 1330	0.4	0.3 0.2	0.1 0.0					0.0 0.1			0.2 0.3		0.3	
1500 1630 1800 1930	0.3 0.4	0.2 0.1								0.1 0.2			0.4	
2100 2230 2400	0.4 0.3 0.3	C.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.7 0.9 1.0	1.2
DATE	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23
TIME 0130 0300 0430 0600 0730 0900 1030	1.2 1.3	1.2 1.1 1.0 0.8 0.7 0.6 0.5	0.4 0.4 0.3	0.2 0.2 0.3 0.3 0.4 0.6	1.2	1.2 1.0 0.8 0.7 0.5 0.4	0.5 0.5 0.6 0.7 0.6	0.5 0.4 0.3 0.4	0.3 0.3 0.4	0.9 1.0 1.1 1.2 1.3	1.1 1.0 0.9 0.7 0.6 0.5	0.5 0.5 0.6 0.6 0.7 0.7	1.1	0.7 0.7 0.6 0.5 0.5
1200 1330 1500 1630 1800	1.3 1.2	0.5 0.4 0.3	-	0.6 0.8 1.0 1.1 1.2	1.2 1.1	0.4	0.6 0.7 0.8 0.7 0.6		0.4 0.5 0.6	1.3		1.0	1.1	0.4
1930 2100 2230 2400	1.2	0.4 0.5 0.5 0.4	0,2	1.2	1.1 1.2 1.2	0.5	0.6 0.5	0.4	0.6 0.7 0.8 0.9	1.2 1.1	0.5	1.1	1.0 0.9 0.8 0.7	0.3 0.7 0.9

LAKE MICHIGAN, STATION 12, 10 m continued.

DATE	2-24	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8
TIME														
0130	0.9	0.2	0.1	0.3	0.3	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.5	0.6
0300			0.2		0.2									0.6
0430			0.3		0.1									0.7
0600		0.2			0.0							0.4		
0730		0.1			0.1							0.5	0.5	0.7
0900						0.2					0.4		0.6	0.8
1030						0.3					0.5			0.9
1200					0.1									1.0
1330					0,2	0.3	0.2							
1500						0.2	0.3	0.3						
1630	0.9							0.4	0.3					1.0
1800	0.8								0.4					1.1
1930	0.6													
2100	0.3							0.4						
2230	0.3							0.3						
2400	0.2	0.1	0.3	0.3	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	1.1
DATE	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
TIME	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
	1.1	3-10 1.2	3-11 1.3	3-12 1.2	3-13 1.4	3-14 1.4	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
TIME							3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
TIME 0130				1.2			3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
TIME 0130 0300				1.2 1.2			3-15	3-16	_3-17	3-18	3–19	3-20	3-21	3-22
TIME 0130 0300 0430	1.1			1.2 1.2	1.4		3-15	3-16	3-17	3-18	3–19	3-20	3-21	3-22
TIME 0130 0300 0430 0600	1.1			1.2 1.2	1.4	1.4	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
TIME 0130 0300 0430 0600 0730	1.1			1.2 1.2	1.4 1.4 1.3	1.4	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
TIME 0130 0300 0430 0600 0730 0900	1.1	1.2		1.2 1.2	1.4 1.4 1.3 1.3	1.4	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
TIME 0130 0300 0430 0600 0730 0900 1030	1.1	1.2		1.2 1.2 1.3	1.4 1.4 1.3 1.3	1.4	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
0130 0300 0430 0600 0730 0900 1030 1200	1.1	1.2		1.2 1.2 1.3	1.4 1.4 1.3 1.3	1.4	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
0130 0300 0430 0600 0730 0900 1030 1200 1330	1.1	1.2		1.2 1.2 1.3	1.4 1.3 1.3 1.2	1.4 1.4 1.5	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500	1.1	1.2	1.3	1.2 1.2 1.3	1.4 1.3 1.3 1.2	1.4 1.4 1.5	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630	1.1	1.2	1.3	1.2 1.2 1.3	1.4 1.3 1.3 1.2	1.4 1.4 1.5			3-17	3-18	3-19	3-20	3-21	3-22
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800	1.1	1.2	1.3	1.2 1.2 1.3	1.4 1.3 1.3 1.2 1.2	1.4 1.4 1.5	3-15		3-17	3-18	3-19	3-20	3-21	3-22
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930	1.1	1.2	1.3	1.2 1.2 1.3	1.4 1.3 1.3 1.2 1.2	1.4 1.4 1.5			3-17	3-18	3-19	3-20	3-21	3-22

LAKE MICHIGAN - STATION 13. Depth 10 m. Start 19 November 1963, 1030 CST; end 10 April 1964, 0945 CST.

Instrument serial no. 170, film record 20,060. Initial cal. 0°C; final cal. 0°C.

DATE 11-19 11-20 11-21 11-22 11-23 11-24 11-25 11-26 11-27 11-28 11-29 11-30 12-1 12-2 TIME 0130 8.3 7.1 8.8 8.7 8.7 8.6 8.4 8.1 7.4 7.0 7.2 7.3 7.3 7.3 0300 8.4 8.0 7.0 7.0 7.1 8.0 7.2 6.9 7.3 7.0 0430 8.2 8.4 7.0 7.2 0600 8.0 8.3 7.9 7.1 6.9 7.1 7.3 0730 8.8 7.8 8.4 7.8 7.0 7.0 7.2 7.4 7.5 0900 8.7 7.8 8.5 7.6 7.0 1030 8.0 7.5 1200 8.8 8.1 8.3 7.6 7.2 7.2 7.2 8.2 8.2 7.5 7.3 7.1 7.4 7.1 1330 1500 8.7 8.3 7.0 7.4 7.0 7.3 6.9 1630 8.6 6.9 6.9 1800 8.3 8.5 7.5 7.0 6.8 1930 8.4 8.4 7.6 7.3 2100 8.4 7.4 6.7 2230 8.3 8.2 2400 8.8 8.7 8.4 8.3 8.1 7.6 7.0 7.5 7.4 7.3 7.1 6.7 8.7 8.6 DATE 12 - 312-4 12-5 12-6 12-7 12-8 12 - 912-10 12-11 12-12 12-13 12-14 12-15 12-16 TIME 0130 6.6 6.7 6.9 6.9 6.8 6.4 6.0 6.1 6.0 5.5 5.2 5.6 5.0 5.0 0300 6.6 6.5 6.9 6.8 6.7 6.5 6.1 5.2 5.4 0430 6.7 6.4 6.8 6.6 6.5 6.0 6.0 5.3 5.0 0600 6.8 6.4 6.4 6.1 5.5 5.3 4.9 0730 6.3 6.1 6.2 5.4 5.4 4.9 0900 6.0 6.3 5.4 5.5 5.4 4.8 5.3 1030 6.8 6.4 5.3 4.7 1200 6.4 6.9 6.0 5.3 4.6 1330 6.8 6.5 6.4 5.9 5.2 1500 6.7 6.3 5.9 5.2 5.5 6.7 1630 6.2 5.8 5.1 5.6 6.7 1800 6.8 5.7 5.3 1930 6.2 5.2 2100 6.7 6.3 6.1 5.7 5.1 2230 6.8 6.4 5.6 5.1 5.0 2400 6.7 6.8 6.9 6.8 6.4 6.0 6.1 6.0 5.6 5.2 5.6 5.0 5.0 4.6 DATE 12-17 12-18 12-19 12-20 12-21 12-22 12-23 12-24 12-25 12-26 12-27 12-28 12-29 12-30 TIME 0130 4.7 4.4 4.2 3.5 3.7 3.6 3.5 3.5 3.5 3.5 3.3 3.6 3.7 3.6 0300 4.8 4.3 3.6 3.5 3.6 3.8 3.6 0430 4.2 3.5 3.7 3.7 3.6 3.5 3.5 0600 4.8 4.1 3.4 3.8 3.6 3.5 3.8 0730 4.9 4.0 3.4 3.8 3.5 3.7 3.3 3.4 3.7 0900 3.9 4.2 3.3 3.7 3.6 3.4 3.3 1030 4.9 3.9 4.1 3.6 3.7 3.6 3.6 3.2 1200 5.0 3.8 4.0 3.6 3.5 3.7 1330 5.0 3.7 3.9 3.7 3.7 3.5 3.2 1500 3.8 3.6 3.3 4.9 3.6 3.4 1630 3.9 3.7 3.5 1800 4.9 4.1 3.7 3.7 3.7 1930 4.9 4.1 3.6 3.3 3.8 3.7 3.3 3.6 3.4 3.7 2100 4.8 4.0 3.6 3.4 3.5 2230 4.7 4.2 3.6 3.6 3.6 2400 3.5 3.5 3.5 3.5 3.5 3.4 3.6 3.6 3.5 4.6 4.2 3.6 3.6 3.6

DATE	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13
TIME 0130	3.5	3.3	3.3	3.4	3.2	3.2	3.3	3.3	3.3	3.2	3.1	3.1	3.1	2.9
0300 0430 0600 0730	3.5 3.4		3.3 3.2	3.4 3.3	3.2 3.3 3.4	3.2 3.3							3.1 3.0	
0900 1030 1200 1330 1500 1630 1800	3.4 3.3		3.2 3.3 3.4		3.4 3.3				3.3 3.2	3.2 3.1	3.1 3.0			
1930 2100 2230 2400	3,3	3.3	3,4	3,3	3.3	3.3	3.3	3.3	3.2	3.1	3.0	3.1	3.0 2.9	2,9
DATE	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27
0130 0300 0430	2,9	2.8	2.8	2.9 2.9 2.8	2.7	2.7	2.8	2.7	2.3	2.6 2.7	2.6	2.7	2.7	2.7
0600 0730 0900 1030			2.9	2.8			2.8 2.7				2.6			
1200 1330 1500 1630 1800 1930	2.9						2.7	2.7 2.6 2.6 2.5 2.4 2.3	2.3	2.7				
2100 2230							2.6		2.5					
2400	2.8	2.8	2.9	2.7	2.7	2.7	2.7	2.3	2.6	2.6	2.7	2.7 2-8	2.7 2-9	2.7
DATE	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7			2-10
0130 0300 0430 0600 0730	2.7 2.7 2.6 2.6	2.3	2,3	2.3	2.2	2.2	2,2	2.2	2.1	2.1	2.2	2.2	2.1	2.0
0900 1030 1200 1330	2.5							2.2				2.2		
1500 1630 1800 1930	2.5 2.4			2.3									2.1 2.0	
2100 2230 2400	2.4 2.3	2.3	2,3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.1	2.0	2.0

DATE	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24
0130 0300 0430	2.0	2.2	2.0	2.1	2.0	1.8 1.8 1.7	1.8 1.8 1.7	1,7	1.7	1.7	1.8	1.9	1.7	1.8
0600 0730 0900 1030 1200 1330	2.0 2.1 2.2	2.2	2.0	2.1 2.0	2.0					1.7 1.8		1.9 1.8		
1500 1630 1800 1930				2.0 2.1	1.9 1.8							1.8 1.7	1.7 1.8	1.8 1.7
2100 2230 2400	2.2	2.1 2.0 2.0	2.1	2.1 2.0 2.0	1.8	1.7	1.7	1.7	1.7	1.8	1.8	1.7	1.8	1.7 1.8 1.8
TIME	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9
0130 0300 0430	1.8 1.7	1.6	1.6	1.8	1.9	1.7 1.6 1.5	1.3	1.3	1.2	1.3	1.5	1.5	1.3	1.2
0600 0730 0900 1030			1.6 1.5			1.5		1.3 1.2	1.2 1.1 1.1	1.3 1.4		1.5 1.4 1.3	1.3	1.2
1200 1330 1500			1.3	1.8 1.9	1.9 1.8	1.4 1.4 1.3		1.2	1.2	1.4 1.3	1.5 1.4		1.2	1.1
1630 1800 1930	1.7 1.6		1.5		1.8	-,-				1.0		1.0		
2100 2230 2400	1.6	1.6	1.6 1.7 1.7	1.9	1.7	1,3	1.3	1.2	1.2 1.3	1.3 1.4 1.5	1.4 1.5	1.3 1.2 1.2	1.2	1.1
DATE	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23
TIME 0130 0300 0430	1.1	1.0	1.2	1.4 1.5 1.1	1.1 1.1 1.0	1.1	1.0	0.9	1.1 1.2	1.3	1.3	1.2	1.4	1.3
0600 0730 0900 1030			1.2 1.3					0.9			1.3 1.2	1.2		1.3 1.4 1.4
1200 1330 1500 1630	1.1	1.0			1.0		1.0	0.8			1.2 1.3	1.3		1.5 1.6 1.7
1800 1930 2100		1.1 1.2						0.9			1.3	1.4	1.4 1.3	1.7
2230 2400	1.0	1.2	1.3 1.4	1.1	1,1	1.1	0.9	1.0	1.2	1.3	1.2 1.2	1.4	1.3	1.5 1.5

LAKE MICHIGAN, STATION 13, 10 m continued.

DATE	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6
TIME														
0130	1.5	1.6	1.3	1.3	1.4	1.5	1.4	Trace						
0300	1.5	1.6				1.4	1.4	ran o	ut					
0430	1.6	1.5				1.3	1.5							
0600	1.7													
0730														
0900						1.3	1.5							
1030						1.2	1.4							
1200														
1330							1.4							
1500		1.5					1.5							
1630		1.4												
1800				1.3			1.5							
1930				1.4	1.4	1.2	1.4							
2100	1.7	1.4		207	1.5	1.3	1.4							
2230	1.6	1.3			2.5	1.3	1.3							
2400	1.6	1.3	1.3	1.4	1.5	1.4	1.3							
2400	1.0	1.3	1.3	1.4	1.3	1.4	1.3							

LAKE MICHIGAN - STATION 13. Depth 15 m.

Start 19 November 1963, 1030 CST; end 10 April 1964, 0945 CST. Instrument serial no. 101, film record 20,061. Initial cal. -0.3°C, final cal. 0°C.

DATE	11-19	11-20	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2
TIME														
0130		9.9	9.9	9.9	9.7	9.2	9.2	9.0	8.6	8.2	8.3	8.3	8.3	8.2
0300					9.6				8.5	8.1	8.2			8.1
0430					9.4			9.0	8.4		8.2			
0600					9.1			8.9	8.3	8.1	8.3	8.3	8.3	
0730					9.0	9.2		8.8		8.2		8.4	8.2	
0900					9.0	9.3		8.7		8.3		8.5		
1030	9.9				9.0			8.6						
1200					9.1		9.2					8.5	8.2	
1330					9.2		9.1					8.4	8.3	
1500					9.2						8.3			
1630					9.3		9.1				8.2	8.4		
1800				9.9			9.0				8.2	8.3		
1930				9.8		9.3					8.4			8.1
2100				9.8	9.3	9.2			8.3					8.0
2230				9.7	9.2				8.2					
2400	9.9	9.9	9.9	9.7	9.2	9.2	9.0	8.6	8.2	8.3	8.4	8.3	8.3	8.0

DATE	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16
0130 0300	7.9 7.9	7.9 7.7	7.9	7.8	7.8 7.7	7.5	7.2	7.1	7.2 7.2	6.5	6.0 6.1	6.3 6.1	6.0	5.9
0430 0600 0730	8.0	7.6	7.9 7.8		7.6 7.5	7.5 7.4 7.2	7.2 7.3		7.1	6.5 6.4	6.2 6.2 6.3	6.2		5.9 5.8 5.8
0900 1030		7.6	7.8 7.9	7.8 7.9		7.1 7.1		7.1 7.2		6.3				5.7 5.6
1200 1330		7.7 7.8			7.5	7.2			7.1	6.2				
1500 1630 1800		7.9 8.0			7.6				6.9 6.9 6.8	6.2 6.1 6.0		6.2 6.1	6.0 5.9	
1930 2100		8.0							6.7	0.0		6.0	3.7	
2230 2400	8.0	7.9 7.9	7.9	7.9	7.6	7.2	7.3	7.2	6.6 6.5	6.0	6.3	6.0	5.9	5.6
DATE	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30
0130	5.6	5.5 5.4	5.5	4.8 4.8	4.7 4.7	4.6	4.6	4.4	4.4	4.4	4.4	4.4	4.4	4.5
0430	5.6	5.4		4.7	4.8									
0600 0730	5.7	5.3 5.2		4.6	4.8								4.4 4.5	4.5 4.4
0900 1030	5.7	5.1 5.1	5.2		4.7							4.4		
1200 1330	5.8 5.8	5.0 5.0	5.1 5.1		4.7 4.8									
1500 1630	5.7	4.9 5.0	5.6		4.0							4.3		
1800		5.1	5.0									4.4		
1930 2100	5.7	5.1	4.9		4.8 4.7									
2230 2400	5.6 5.6	5.2 5.2	4.9 4.8	4.6	4.6	4.6	4.6	4.4	4.4	4.4	4.4	4.4	4.5	4.4
DATE	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13
0130	4.4	4.4	4.4	4.3	4.3	4.3	4.3	4.3	4.3	4.2	4.1	4.1	4.1	4.0
0300 0430 0600														4.0
0730														3.9
0900 1030			4.4 4.3											
1200 1330														
1500 1630		4.4												
1800 1930		4.3							4.3					
2100 2230									4.2	4.2				
2400	4.4	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.2	4.1 4.1	4.1	4.1	4.1	3.9

LAKE MICHIGAN, STATION 13, 15 m continued.

DATE	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27
0130 0300	3.9	3.8	3.6	3.4	3.5	3.3 3.2	3.1 3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.1
0430 0600 0730 0900 1030 1200 1330 1500 1630	3.9 3.8	3.8 3.7 3.7 3.6	3.6 3.5	3.4 3.5	3.5 3.4	3.1	3.2			3.2 3.3 3.3 3.2	3.2 3.3 3.3 3.2		3.2 3.1	
1800 1930 2100 2230			3.5		3.4 3.3									
2400	3.8	3.6	3.4	3.5	3.3	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.1	3.1
DATE	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10
0130 0300 0430 0600	3.0	2.9	2.9	2.9	2.9	3,0	3.0	2.9	2.8 2.8 2.7	2.6	2.7	2.6	2.7	2,6
0730 0900 1030												2.6		
1200 1330 1500 1630 1800 1930 2100 2230	3.0 2.9				2.9 3.0		3.0 2.9	2.9	2.7 2.6	2.6	2.7		2.7 2.6	
2400	2.9	2.9	2.9	2.9	3.0	3.0	2.9	2.8	2.6	2.7	2.6	2.7	2.6	2.6
DATE	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24
0130 0300 0430 0600	2.6	2.6	2.5	2.5	2.5	2.5	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.2
0730 0900 1030													2.2	
1200 1330 1500 1630 1800 1930		2.6 2.5				2.5 2.4		2.4						2.2
2100 2230 2400	2.6	2.5	2.5	2.5	2.5	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.2	2.1

DATE	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9
0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930 2100 2230	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0
2400 DATE	2.1 3-10	2.1 3-11	2.1 3-12	2.1 3-13	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0
TIME					3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23
0130 0300 0430 0600 0730 0900 1030 1200	2.0	2,1	2,1	2.0	2.0	2.0	2.1	2.2	2.2	2,2	2.2	2.0	2.1	2.1 2.1 2.2
1330 1500 1630 1800 1930 2100 2230	2.0 2.1						2.1				2.1 2.0	2.0 2.1		
2400	2.1	2.1	2.1	2.0	2.0	2.1	2.2	2.2	2.2	2.2	2.0	2.1	2.1	2.2
DATE TIME	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6
0130 0300 0430 0600 0730	2.2	2.2	2.0	2.0 2.0 2.1	2.1	2.0	1.9 1.9 2.0	2.0	2.1	2.1	2.0	1.9 1.9 2.0	2.1	2.2
0900 1030 1200 1330 1500 1630 1800 1930		2.2			2.1			2.0 2.1		2.1 2.0	2.0 1.9	2.0	2.1	2.2 2.1
2230 2400	2.2	2.1 2.0	2.0	2.1	2.0	2.0 1.9 1.9	2.0	2.1	2.1	2.0	1.9	2.1	2.2	2.1

LAKE MICHIGAN, STATION 13, 15 m continued.

DATE	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20
TIME														
0130	2.1	2.0	2.1	2.2										
0300														
0430														
0600														
0730	2.1													
0900	2.0			2.2										
1030			2.1	71 . 1 .	c .									
1200			2.2	o bita	f tape									
1330														
1500														
1630														
1800		2.0												
1930		2.1												
2100														
2230														
2400	2.0	2.1	2.2											

LAKE MICHIGAN - STATION 13. Depth 30 m. Start 19 November 1963, 1030 CST; end 10 April 1964, 0945 CST. Instrument serial no. 152, film record 20,063. Initial cal. 0°C; final cal. 0°C.

DATE	11-19	11-20	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2
TIME														
0130		9.0	9.0	9.0	9.0	8.8	8.9	8.9	8.7	8.4	8.4	8.3	8.3	8.3
0300					8.4				8.7					
0430									8.6					
0600														8.3
0730					8.4	8.8			8.6					8.2
0900					8.5	8.9			8.5					
1030											8.4			
1200	10.1	9.0			8.5			8.9			8.3			
1330		7.2			8.6			8.8	8.5		•••			
1500		8.9			8.6				8.4					
1630	10.1	9.0			8.7				•••					
1800	9.0	,,,			8.7									8.2
1930					8.8									8.1
2100					0.0									0.1
2230														
2400	9.0	9.0	9.0	9.0	8.8	8.9	8.9	8.8	8.4	8.4	8.3	8.3	8.3	8.1

DATE	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16
0130 0300	8.1	8.1 8.0	8.0	8.0	8.0 7.9	7.7	7.4	7.5 7.5	7.5	7.1	6.5	6.5	6.3	6.2
0430 0600 0730 0900 1030					7.8	7.7 7.6 7.4	7.4 7.5	7.4 7.4 7.5		7.1 7.0 6.9 6.8				6.2 6.1 6.0 6.0
1200 1330 1500 1630 1800 1930									7.5 7.3 7.2	6.7 6.6 6.6 6.5		6.5 6.4	6.3 6.2	5.9
2100 2230 2400	8.1	8.0	8.0	8.0	7.8	7.4	7.5	7.5	7.2 7.1	6.5	6.5	6.4 6.3 6.3	6.2	5.9
DATE	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30
0130 0300 0430	5.9	5.8 5.8 5.7	5.3	5.3	5.2	5.2	5,2	5.2	5.1	5.1	5.0	5.0	5.0	5.0
0600 0730 0900 1030		5.7 5.6 5.5 5.4		5.3 5.2				5.2						
1200 1330 1500 1630		5.4 5.3						5.1						
1800 1930 2100 2230									5.1	5.1 5.0				
2400 DATE	5.9 12-31	5.3 1-1	5.3 1-2	5.2 1-3	5.2 1-4	5.2 1-5	5.2 1-6	5.1 1-7	5.0 1-8	5.0 1-9	5.0 1-10	5.0 1-11	5.0 1-12	5.0 1-13
TIME 0130	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.9	4.8	4.8	4.7	4.5
0300 0430 0600 0730													4.7 4.6	4.5 4.3
0900 1030 1200 1330 1500									5.0 4.9			4.8 4.7	4.6 4.5	
1630 1800 1930 2100										4.9 4.8				
2230 2400	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.9	4.8	4.8	4.7	4.5 4.4	4.3

DATE	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27
TIME 0130 0300	4.3	4.3	4.3	4.2	4.1	4.0	3.7	3.7	3.7	3.7	3.7	3.8 3.7	3.5	3.5
0430 0600 0730 0900 1030 1200				4.2		3.8	3.7 3.8	3.7 3.8	3.7 3.8		3.7 3.8	3.7		
1330 1500 1630 1800 1930			4.3 4.2	4.1	4.1		3.8	3.8 3.7	3.8 3.7		3.8 3.9	3.7 3.5		
2100 2230					4.0		3.7				3.9 3.8	3.5 3.4		
2400 DATE	4.3 1-28	4.3 1-29	4.2 1-30	4.1 1-31	4.0 2-1	3.7 2-2	3.7 2-3	3.7 2-4	3.7 2-5	3.7 2-6	3.8 2-7	3.4 2-8	3.5 2-9	3.5 2-10
TIME														
0130 0300 0430	3.5	3.5	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.3	3.3	3.3	3.3	3.3
0600 0730 0900 1030		3.5 3.4	3.4						3.4					3.3
1200 1330 1500 1630 1800			3.3											3,2
2100 2230														
2400	3.5	3.4	3.3	3.4	3.4	3.4	3.4	3.4	3.3	3.3	3.3	3.3	3.3	3.2
DATE	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24
0130 0300	3.2	3.2	3.2	3.2	3.1	3.1	2.9	2.9	2.9	3.0	3.0	3.0	2.9	2.8
0430 0600 0730 0900 1030						3.1 3.0 2.9			2.9					2.8
1200 1330 1500 1630									3.0			3.0 2.9		2.7
1800 1930 2100 2230 2400	3.2	3.2	3.2	3.2 3.1 3.1	3.1	2.9	2.9	2.9	3.0	3.0	3.0	2.9	2.9 2.8 2.8	2.7 2.6 2.4

DATE	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9
TIME 0130 0300 0430	2.4	2.4	2.4	2.3	2.4	2.5	2.5	2.5	2.5	2.3 2.3 2.2	2.0	2.0	2.0	2.0
0600 0730	2.4			2.3						2.2				
0900 1030				2.4										2.0
1200 1330														
1500 1630	2.3									2.1				
1800 1930	-•.													
2100 2230			2.4						2.5					
2400	2.4	2.4	2.3	2.4	2.4	2.5	2.5	2.5	2.3	2.0	2.0	2.0	2.0	2.1
DATE	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23
0130	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.3
0430	2.2													
0600 0730														
0900 1030														
1200 1330							2.2							
1500 1630						2.2	2.1							
1800 1930														
2100 2230														
2400	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3
DATE	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6
0130 0300 0430	2.3	2.2	2.1 2.1 2.0	2.0	2.1	2.2	2.1	2.2	2.2	2.2	2.2	2.0	2.0	2.0
0600 0730			2.0	2.0			2.1							
0900				2.1			2.2							2.0
1030 1200											2.2			2.1
1330 1500											$\frac{2.1}{2.1}$			
1630 1800	2.3 2.2	2.2									2.0			
1930 2100		2.1												
2230 2400	2.2	2.1	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.0	2.0	2.0	2.1

LAKE MICHIGAN, STATION 13, 30 m continued.

DATE	4-7	4-8	4-9	4-10 4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20
DATE TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500	4-7 2.2	2.2	2.2	4-10 4-11 2.2 2.2 Removed frwater at 0	om.	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20
1630 1800 1930 2100 2230													
2400	2.2	2.2	2.2										

LAKE MICHIGAN - STATION 13. Depth 90 m. Start 19 November 1963, 1030 CST; end 10 April 1964, 0945 CST.
Instrument serial no. 338, film record 20,065. Initial cal. 0°C; final cal. 0°C.

DATE	11-19	11-20	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2
TIME														
0130		3.8	3.7	3.9	3.9	3.9	3.9	4.0	4.0	4.0	4.0	3.9	3.9	3.9
0300														
0430														
0600														
0730														
0900														
1030														
1200	3.9						3.9							
1330							4.0							
1500														
1630		3.8		3.9										
1800		3.7		3.8							4.0			
1930	3.9										3.9			
2100	3.8		3.7											
2230			3.8											
2400	3.8	3.7	3.8	3.8	3.9	3.9	4.0	4.0	4.0	4.0	3.9	3.9	3.9	3.9

DATE	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16
0130 0300 0430 0600 0730	3.9	4.0 4.0 4.1	4.0	4.0	4.0	4.0	4.1	4.0	4.0	3.9 3.9 4.0	4.0	4.0	3.9	4.1 4.4 4.6 4.7 4.8
0900 1030 1200		4.1					4.0			4.0 4.1 4.0				4.9 4.5
1330 1500 1630 1800	3.9	4.0							4.0			4.0 3.9	3.9 4.0	4.5 4.6 4.8 4.9
1930 2100 2230 2400	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.9	4.0	4.0	2.0	4.0 4.1 4.4	4.9 4.8 4.9
DATE	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24		12-26	12-27	3.9 12-28	12-29	21-30
TIME 0130	4.3	3.9	4.4	4.6	4.5	4.6	4.4	4.3	4.2	4.2	4.2	4.5	4.7	4.7
0300	4.1	3.7	4.4	4.0	4.6	4.0		4.5			7.2	4.5		
0430 0600		3.9	4.3 4.2		4.7 4.7	4.6						4.5		
0730	4.1	4.0	4.1		4.6	4.5						4.3		
0900	4.2	4.1	4.1									4.1		
1030 1200	4.5 4.0	4.1 4.2	4.2 4.6	4.6							4.2		4.7 4.6	
1330	3.9	4.1	4.7	4.5							4.3		4.7	4.7
1500	3.9	4.2	4.7				4.4	4.3			4.4	4.1	4.7	4.6
1630		4.1	4.6			4.5	4.3	4.2			4.5	4.2	4.6	4.0
1800		4.2	4.6			4.4								
1930		4.9										4.2	4.6	4.6
2100		4.9										4.3	4.7	4.5
2230		4.6										4.3	4.6	
2400	3.9	4.6	4.6	4.5	4.6	4.4	4.3	4.2	4.2	4.2	4.5	4.5	4.7	4.5
DATE	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13
0130 0300	4.5	4.4	4.3	4.2	4.2	4.2	4.1	4.1	4.0	4.0	4.0	4.0	4.0	4.0
0430 0600						4.2								
0730					4.2	4.1								
0900					4.1	7.1								
1030														
1200		4.4												
1330		4.3						4.1						
1500	4.5							4.0						
1630	4.4													
1800			4.3											
1930 2100			4.2											
2230														
2400	4.4	4.3	4.2	4.2	4.1	4.1	4.1	4.0	4.0	4.0	4.0	4.0	4.0	4.0

DATE	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27
TIME 0130 0300	4.0	4.0	3.9	3.8	3.8	3.2 3.1	3.1	3.3	3.3	3.3	3.4	3.5	3.1 3.0	3.1
0430 0600 0730 0900 1030 1200 1330 1500		4.0 3.9	3.9 3.8		3,8 3,7	3.0	3.1 3.2 3.2 3.3			3.3 3.4		3.5 3.4 3.4 3.3 3.3 3.2	3.0 3.1	
1630 1800 1930 2100 2230					3.7 3.6 3.5	3.0 3.1					3.4 3.5	3.1		3.1 3.0
2400	4.0	3.9	3.8	3.8	3.3	3.1	3.3	3.3	3.3	3.4	3.5	3.1	3.1	3.0
DATE	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10
0130 0300 0430	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.9	3.0	3.0	2.9	2.9
0600 0730 0900 1030												3.0 2.9		
1200 1330 1500 1630										2.9 3.0				
1800 1930 2100							3.0 2.9							2.9 3.0
2230 2400	3.0	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.9	3.0	3.0	2.9	2.9	3.0
DATE TIME	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24
0130 0300 0430	3.0	3.0	2.9	2.9	2.9	2.8	2.7	2.7	2.6	2.6	2.6	2.8	2.9	2.7
0600 0730 0900		3.0 2.9		2.9							2.6		2.9	2.6
1030 1200 1330				2.8	2.9						2.7	2.8 2.9		2.6 2.5
1500 1630 1800 1930						2.8		2.7					2.8 2.7	2.5 2.4
2100 2230 2400	3.0	2.9	2.9	2.8	2.8	2.7	2.7	2.6	2.6	2.6	2.7 2.8 2.8	2.9	2.7	2.4

DATE TIME	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9
0130	2.3	2.3	2.4	2.5	2.5	2.3	2.3	2.2	2.2	2.3	2.2	2.2	2.2	2.2
0300 0430 0600 0730 0900 1030			2.4		2.5 2.4		2.3		2.2					
1200 1330 1500 1630 1800		2.3								2.3				2.2 2.3
1930 2100 2230					2.4									2.3
2400 DATE	2.3 3-10	2.4 3-11	2.5 3-12	2.5 3-13	2.3 3-14	2.3 3-15	2.2 3-16	2.2 3-17	2.3 3-18	2.2 3-19	2.2 3-20	2.2 3-21	2.2 3-22	2.4 3-23
TIME	3-10													
0130 0300	2.4	2.5	2.5	2.5	2.6	2.4	2.5	2.7	2.7	2.7	2.8	2.7	2.6	2.7
0430							2.6					2.6	2.6	
0600 0730	2.4				2.6					2.7		2.6	2.7	
0900	2.5				2.3					2.0		2.5		
1030							2.6							2.7
1200				2.5			2.7							2.8
1330 1500				2.6		2.4								
1630					2.5	2.5								
1800					2.4						2.8	2.5		
1930 2100											2.7	2.6		
2230														
2400	2.5	2.5	2.5	2.6	2.4	2.5	2.7	2.7	2.7	2.8	2.7	2.6	2.7	2.8
DATE	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6
TIME	2.8	2.9	2.5	2.3	2.6	2.6	2.3	2.4	2.5	2.6	2.6	2.2	2.5	2.6
0130 0300	2.0	2.9	2.5	2.4	2.0	2.0	2.3	2.4	2.5	2.0	2.6	2.2	2.5	2.0
0430			2.4	2.5	2.6						2.5		2.6	
0600			2.3	2.6	2.7			2.4				2.2		2.6
0730 0900	0.0		2.3			2.6		2.5			2.5	2.3		2.7
1030	2.8	2.9	2.2			2.3					2.4			
1200		2.8	2.1		2.7				2.5			2.3		
1330					2.6	2.5	2.3		2.6		2.4	2.4		
1500 1630						2.4	2.4				2.3	2.4		
1800		2.8									4.4	4.5		
1930		2.7												
2100		2.7	2.1											
2230 2400	2.9	2.6	2.2	2.6	2.6	2.4	2.4	2.5	2.6	2.6	2.2	2.5	2.6	2.7
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LAKE MICHIGAN, STATION 13, 90 m continued.

DATE	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20
TIME 0130 0300 0430 0600	2.7	2.5	2.5 2.5 2.6	2.7										
0730	2.6													
0900				2.7										
1030	f			Remov	ed at									
1200			2.6	1000										
1330 1500			2.6											
1630	2.6		2.1											
1800	2.5													
1930														
2100														
2230														
2400	2.5	2.5	2.7											

LAKE MICHIGAN - STATION 15. Depth 10 m. Start 26 November 1963, 0830 CST; end 15 April 1964, 1200 CST.

Instrument serial no. 259, film record 20,081. Initial cal. Indet.; final cal. -0.5°C.

DATE	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9
TIME														
0130		11.0	10.8	10.3	9.9	9.8	10.1	10.0	10.0	9.8	9.5	9.9	9.4	9.1
0300			10.7	10.2								9.9	9.3	9.2
0430		11.0	10.5	10.1					10.0			9.8	9.2	
0600		10.9	10.4	10.0					9.9	9.8		9.7	9.0	
0730			10.5		9.9					9.7			8.9	
0900	10.8				9.8		10.1		9.9	9.7				
1030	10.9						10.0		9.8	9.6				
1200	11.0										9.5			9.2
1330		10.9			9.8	9.8				9.6	9.7	9.7		9.1
1500		10.8			9.7	9.9				9.5	9.8	9.8		
1630						9.9			9.8	9.4	9.9			
1800			10.5	10.0	9.7	10.0			9.9				8.9	9.1
1930			10.4	9.9	9.8					9.4		9.8	9.0	9.0
2100										9.5		9.7	9.0	
2230			10.4						9.9			9.6	9.1	
2400	11.0	10.8	10.3	9.9	9.8	10.0	10.0	10.0	9.8	9.5	9.9	9.6	9.1	9.0

DATE	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23
0130 0300 0430 0600 0730	9.0	8.7 8.7 8.6	8.7 8.6 8.6 8.5	8.1 8.0	7.2 7.1 7.0	6.7 6.6 6.5 6.4	6.1	6.0	6.1 6.1 6.0	5.9	5.7 5.7 5.8	5.7 5.8 5.9 5.9 6.0	5.9 5.9 5.8	5.8
0900 1030 1200		8.6 8.7	8.5 8.4	8.0 7.9 7.9		6.4 6.3	6.1 6.0		6.0 5.9					
1330 1500 1630 1800	9.0	8.7 8.8	8.4	7.8 7.7 7.6 7.5	7.0 6.9	6.3				5.9 5.8	5.8 5.7	6.0 5.9		
1930 2100 2230 2400	8.9 8.8 8.8 8.7	8.8 8.7 8.7	8.3 8.3 8.2 8.1	7.4 7.3 7.3 7.2	6.9 6.8 6.7	6.2 6.1 6.1	6.0	6.0 6.1 6.1	5.9	5.8 5.7	5.7	5.9	5.8	5.8
DATE	12-24	12-25		12-27		12-29	12-30		1-1	1-2	1-3	1-4	1-5	1-6
TIME 0130 0300	5.8	5.8	5.8	5.8	5.8	5.7	5.5	5.3	5.3	5.1	5.0	5.0	5.0	5.0
0430 0600 0730 0900					5.8 5.7		5.5 5.4		5.3 5.2	5.1 5.0				5.0 4.9
1030 1200 1330 1500						5.7 5.6			5.2 5.1					
1630 1800 1930 2100 2230						5.6 5.5	5.4 5.3							
2400	5.8	5.8	5.8	5.8	5.7	5.5	5.3	5.3	5.1	5.0	5.0	5.0	5.0	4.9
DATE	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20
0130 0300 0430 0600	4.9	4.9	4.9	4.7	4.7	4.5	4.3	4.3	4.0 3.7 2.7 2.3	4.0	4.0	4.0	4.0	4.0
0730 0900 1030 1200 1330			4.8		4.7 4.6	4.5 4.4	4.3 4.4 4.5		2.3 2.4 2.6 2.8					
1500 1630 1800			4.8 4.7			4.4 4.3			2.9 3.6 4.0					
1930 2100 2230 2400	4.9	4.9	4.7	4.7	4.6 4.5 4.5	4.3	4.5 4.4 4.4 4.3	4.3 4.1 4.0	4.0	4.0	4.0	4.0	4.0	4.0

LAKE MICHIGAN, STATION 15, 10 m continued.

DATE	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3
TIME														
0130	4.0	4.0	4.0	4.0	4.0	3.9	3.9	3.8	3.5	3.4	3.4			
0300														
0430														
0600								3.8						
0730	4.0						3.9	3.7	3.5					
0900	3.5						3.8		3.4					
1030	3.2						3.8							
1200	3.1						3.9	3.7						
1330							3.8	3.6						
1500														
1630					4.0									
1800					3.9			3.6						
1930								3.5						
2100	3.1													
2230	3.6													
2400	4.0	4.0	4.0	4.0	3.9	3.9	3.8	3.5	3.4	3.4	3.4	ande	Damaged	£11m

LAKE MICHIGAN - STATION 15. Depth 22 m. Start 26 November 1963, 0830 CST; end 15 April 1964, 1200 CST. Instrument serial no. 109, film record 20,083. Initial cal. 0°C; final cal. -0.4°C.

DATE	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9
TIME														
0130		9.9	9.7	9.4	9.2	9.0	9.3	9.3	9.3	9.2	8.7	8.8	8.7	8.3
0300			9.7		9.1		9.3			9.2			8.6	
0430			9.6				9.4			9.1			8.5	
0600		9.9	9.5										8.4	
0730		9.8								9.1			8.2	8.3
0900	9.5			9.4					9.3	9.0				8.4
1030	9.6			9.3	9.1				9.2			8,8		
1200	9.7				9.0							8.7		
1330	9.8									9.0				
1500	9.9					9.0				8.9				
1630				9.3		9.1	9.4							
1800				9.2		9.1	9.3				8.7			
1930		9.8				9.2				8.9	8.8		8.2	
2100		9.7								8.8			8.3	
2230			9.5											
2400	9.9	9.7	9.4	9.2	9.0	9.2	9.3	9.3	9.2	8.8	8.8	8.7	8.3	8.4

DATE	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23
TIME 0130	8.4	8.0	7.7	7.4	6.4	6.0	5.7	5.4	5.4	5.3	5.2	4.9	5.1	5.2
0300		7.8				5.9	5.6							
0430		7.7			6.4	5.8			5.4		5.2	4.9	5.1	
0600			7.7	7.4	6.3				5.3		5.1	5.0	5.2	
0730 0900			7.6	7.3 7.3								5.1 5.2		
1030				7.2			5.6					3.2		
1200				7.1		5.8	5.5							
1330				7.0	6.3	5.7					5.1			
1500				6.8	6.2					5.3	5.0			
1630			7.6	6.7			5.5			5.2		- 0		
1800 1930	0 /		7.5	6.6 6.5	6.2 6.1		5.4				5.0	5.2 5.1		
2100	8.4 8.3		7.5	6.4	0.1						4.9	3.1		
2230	8.2		7.4	0.4	6.1						7.0			
2400	8.1	7.7	7.4	6.4	6.0	5.7	5.4	5.4	5.3	5.2	4.9	5.1	5.2	5.2
DATE	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6
TIME														
0130 0300	5.2	5.0	5.0	5.0	5.0	4.8	4.6	4.4	4.4	4.4	4.1	4.1	4.0	4.0
0430														
0600	5.2						4.6							
0730	5.1				5.0		4.5							
0900					4.9									
1030						4.8				4.4				
1200 1330						4.7	4.5			4.3				
1500	5.1						4.4					4.1		
1630	5.0									4.3		4.0		
1800										4.2				4.0
1930					4.9									3.9
2100					4.8	, ,				4.2				
2230 2400	5.0	5.0	5.0	5.0	4.8	4.7 4.6	4.4	4.4	4.4	4.1 4.1	4.1	4.0	4.0	3.9
DATE TIME	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20
0130	3.9	3.7	3.7	3.6	3.5	3.4	3.4							
0300														
0430	3.9													
0600	3.8		3.7											
0730 0900			3.6											
1030														
1200														
1330														
1500														
1630	2.0						2 /							
1800 1930	3.8 3.7			3.6			3.4							
2100	3.7			3.5	3.5		Data	ends.						
2230				- • •	3.4									
2400	3.7	3.7	3.6	3,5	3.4	3.4								

LAKE MICHIGAN - STATION 15. Depth 30 m. Start 26 November 1963, 0830 CST; end 15 April 1964, 1200 CST. Instrument serial no. 105, film record 20,084. Initial cal. 0°C; final cal. 0°C.

DATE	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9
0130 0300		10.0	10.0	9.9	9.2	9.1	9.3 9.4	9.3	9.3	9.2	9.0	9.0	9.0	8.5
0300 0430 0600 0730 0900 1030 1200 1330 1500 1630	9.8 9.8 9.9 10.0			9.9 9.8 9.7 9.6 9.5 9.4	9.2 9.1	9.1	9.4 9.5 9.5 9.5 9.4 9.3		9.3 9.2	9.2 9.1 9.1 9.0			9.0 8.9 8.7 8.4 8.3	8.5 8.6 8.7
1800 1930 2100 2230			10.0 9.9	9.4 9.3 9.3	9.1	9.2	9.3						8.3 8.4	8.7
2400	10.0	10.0	9.9	9.2	9.1	9.3	9.3	9.3	9.2	9.0	9.0	9.0	8.5	8.8
DATE	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23
0130 0300	8.8 8.8	8.1 8.1	7.9	7.9 7.8	6.9 6.9	6.1 6.1	5.9	5.7	5.7 5.5	5.4	5.3	5.2	5.3	5.2
0430 0600 0730 0900	8.7 8.6	8.0		7.7 7.6 7.5 7.4	6.8 6.7 6.6 6.5	6.0				5.4 5.3	5.3 5.2	5.2 5.3	5.3	
1030 1200 1330 1500	8.6 8.5 8.4			7.3 7.3 7.1 7.0	6.5 6.4 6.3		5.9 5.8		5.5 5.4				5.2	
1630 1800 1930 2100	8.4	8.0 7.9		7.0 6.9	6.3 6.2 6.1	6.0	5.8 5.7							
2230 2400	8.3 8.2	7.9	7.9	6.9	6.1	5.9	5.7	5.7	5.4	5.3	5.2	5.3	5.2	5.2
DATE	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6
0130 0300	5.2	5.2	5.2	5.2	5.2	5.2	5.0	5.0	4.9	4.5	4.4	4.3	4.3	4.2
0430 0600 0730 0900						5.2		5.0 4.9	4.9 4.8					
1030 1200 1330	•					5.1			4.8 4.7		4.4 4.3			
1500 1630 1800 1930 2100						5.1 5.0	5.0 4.9		4.7 4.6	4.5 4.4	4.3		4.3 4.2	
2230 2400	5.2	5.2	5.2	5.2	5.2	5.0	4.9	4.9	4.6 4.5	4.4	4.3	4.3	4.2	4.2

LAKE MICHIGAN, STATION 15, 30 m continued.

DATE	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20
TIME 0130 0300	4.2	4.2	4.2	4.1	4.1	4.1	4.1	4.0	3.0 3.1	3.1	3.0	3.0	3.0	3.1
0430 0600 0730								4.0						
0900 1030 1200			4.1				4.1 4.0	3.7 3.5 3.4		3.1 3.0				3.1 3.0
1330 1500 1630								2.8 2.1					3.0	3.0 2.9
1800 1930 2100 2230								2.1					3.1	2,9
2400	4.2	4.2	4.1	4.1	4.1	4.1	4.0	2.5	3.1	3.0	3.0	3.0	3.1	2.9
DATE	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3
0130 0300 0430 0600 0730 0900 1200 1200 1330 1500 1630 1800 1930 2100 2230	2.9 2.9 3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
2400	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

LAKE MICHIGAN - STATION 17. Depth 10 m. Start 21 November 1963, 0900 CST; end 2 April 1964, 1515 CST. Instrument serial no. 135, film record 20,092. Initial cal. 0°C; final cal. Indet.

DATE	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4
TIME														
0130		10.6	10.8	10.1	10.2	9.1 9.1	9.5	9.4 9.3	8.8	9.0	8.8	8,4	8.0	7.0
0430		11.0	10.1		10.0	9.2	J. T	9.2			8.2			
0600		11.1			9.9		9.4	9.0	8.8		7.9			7.0
0730		11.0			9.4		9.5		8.9		7.2	8.4		6.9
0900 1030	10.1			10.1	9.2 9.1	9.2 9.3				9.0 8.9	7.1 7.3	8.3 8.0	8.0 7.9	6.8
1200	10.1		10.1	10.2	9.0	9.4	9.5		8.9	0.9	7.7	7.9	7.8	
1330	10.1	11.0	10.4		8.8	9.6	9.4	9.0	8.7		7.9	8.0	7.6	
1500	10.2	10.9			8.8	9.7		8.9	8.2		8.0		7.2	
1630 1800	10.2 10.3	10.8		10.3	8.9 9.0		9.4		8.2 8.3		8.1 8.2	0.0	7.0	
1930	10.3	10.8		9.9	9.0		9.4	8.9	8.4		8.3	8.0 7.9		
2100		10.7	10.4	10.0			,,,	8.8	8.7		8.4			
2230		10.8	10.3	10.1		9.7			8.9	8.9	8.3			
2400	10.3	10.9	10.1	10.2	9.0	9.6	9.5	8.8	9.0	8.8	8.4	7.9	7.0	6.8
DATE	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18
0130	6.8	7.0	6.7	6.9	6.9	6.7	6.1	5.6	5.1	5.1	5.1	5.1	4.9	4.1
0300	6.7				6.9	6.7			5.0					
0430 0600	6.9	7.0			6.8	6.6		5.6	4.9					
0730	7.0	6.9		6.9			6.1	5.5						
0900	7.2	6.7		6.8		6.6	6.0							
1030	7.3	6.8			6.8	6.4						5.1		
1200 1330	7.1 7.3	6.7	6.7		6.7	6.2			4.9			5.0		4.1 4.0
1500	7.4		6.8				6.0		5.0					3.9
1630	7.4		6.9	6.8			5.9		5.1				4.9	3,7
1800	7.3			6.9			5.9						4.8	
1930	7.2						5.8					- 0	4.6	2.0
2100 2230	7.1 7.0					6.2 6.1	5.8 5.7	5.5 5.4				5.0 4.9	4.2 4.1	3.9 3.8
2400	7.0	6.7	6.9	6.9	6.7	6.1	5.7	5.3	5.1	5.1	5.1	4.9	4.1	3.7
DATE	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1
TIME						0.0		2.2	2 /	2 7	2.0	2.0	2 /	2.0
0130 0300	3.6 3.5	3.2 3.1	2.8	2.6	2,4	2.2	2.3	2.3	2.4	2.7	2.8	2.8	2.4	2,0
0430	3.3	3,1		2.5										
0600	3.2				2.4				2.4		2.8	2.8		
0730					2.2				2.5		2.7	2.6		
0900 1030		3.1	2.8	2.5 2.4				2.3				2.4	2.4	
1200		3.0	2.7	2.4				2.4					2.3	
1330		3.0	_•,											
1500		2.9							2.5	2.7			2.3	
1630 1800		2.9				2.2			2.6	2.8			2.2	
1930		2.0				2.3			2.6		2.7		2.1	
2100									2.7		2.8		2.0	
2230	20	0.0	0.7	2 /	2.2	2.2	2.3	2,4	2.7	2.8	2.8	2.4	2.0	2.0
2400	32.	2.8	2.7	2.4	2.2	2.3	4.3	2.4	4.1	2.0	2.0	2.4	2.0	2.0

DATE	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15
0130 0300 0430	2.0	2.0	2.0	2.1	2.0	2.0	2.2	2.6	2.6	2.7	2.7	2.3	2.0 2.0 2.1	2.3
0600 0730 0900 1030 1200				2.1		2.1						2.2 2.1 2.0	2.1 2.2 2.3	
1330 1500 1630 1800			2.0 2.1			2.1 2.2	2.2 2.3 2.4				2.7			2.3
1930 2100 2230							2.4		2.6		2.6 2.5 2.4			
2400 DATE	2.0 1-16	2.0 1-17	2.1 1-18	2.0 1-19	2.0 1-20	2.2 1-21	2.6 1-22	2.6 1-23	2.7 1-24	2.7 1-25	2.4 1-26	2.0 1-27	2.3 1-28	2.2 1-29
TIME 0130 0300 0430	2.2	2.2	2.1	2.0	2.0	2,0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1
0600 0730 0900 1030		2.2												
1200 1330 1500 1630 1800									2.0					
1930 2100 2230			2.1 2.0											
2400 DATE	2.2 1-30	2.1 1-31	2.0 2-1	2.0 2-2	2.0	2.0 2-4	2.0 2-5	2.0 2-6	2.1	2.1 2-8	2.1 2-9	2.1 2-10	2.1 2-11	2.1 2-12
0130 0300 0430 0600 0730 0900 1030 1200	2.1	2.1 2.2 2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2
1330 1500 1630 1800 1930 2100 2230 2400	2.1	2.3	2.3	2.3	2,3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3 2.2	2.2

DATE	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26
TIME 0130	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2,2	2.1	2 0	0.1
0300	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.1	2.0	2.1
0430														
0600														2.1
0730 0900														2.0
1030												2.1		
1200										2.3		2.0		
1330										2.2				
1500														
1630 1800											2.2			2.0
1930								2.2			2.1		2.0	2.1
2100								2.3					2.1	
2230														
2400	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.1	2.0	2.1	2.1
DATE	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11
0130	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.3	2.2	2.2	2.2	2.2	2.3	2.3
0300														
0430														
0600 0730				2.1								2.2		
0900				2.0		2.0						2.3		
1030						2.1								
1200														
1330 1500														2.3
1630	2.0							2.3						2.4
1800	2.1							2.2						
1930														
2100 2230							2.1							
2400	2.1	2.1	2.1	2.0	2.0	2.1	2.3	2,2	2.2	2.2	2.2	2.3	2.3	2.4
DATE	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25
TIME														
0130 0300	2.5	2.5	2.5	2.6	2.6	2.7	2.6	2.6	2.6	2.7	2.7	2.7	2.6	2.6
0430						2.6								
0600														
0730														
0900 1030														
1200			2.5											
1330			2.6											
1500					2.6									
1630 1800					2.7									2,6
1930														2.7
2100									2.6					
2230	0.5					0 (0.6	0.6	2.7	0 7	0.7	2.7	0.6	0.7
2400	2.5	2.5	2.6	2.6	2.7	2.6	2.6	2.6	2.7	2.7	2.7	2.6	2.6	2,7

LAKE MICHIGAN, STATION 17, 10 m continued.

DATE	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8
TIME 0130 0300 0430 0600 0730 0900 1030 1200	2.7	2.7	2.8	2.8	2.8	3-31	4-1	4-2	4-3	4-4	4-5	4-6	_4-7	4-8
1330 1500 1630 1800 1930 2100 2230 2400	2.7	2.8	2.8	2.8	2.8 Remov water	ed fro	om							

LAKE MICHIGAN - STATION 17. Depth 15 m. Start 21 November 1963, 0900 CST; end 2 April 1964, 1515 CST. Instrument serial no. 298, film record 20,093. No temperature correction.

DATE	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4
TIME														
0130		8.8	8.9	8.8	9.0	7.7	8.4	8.4	7.3	7.6	7.5	5.5	6.4	6.6
0300		9.0	8.7	8.9		7.4	8.5	8.3	7.5	7.4	7.6	5.7	6.3	6.0
0430			8.6	9.0		7.5	8.6		7.5	7.0		6.0		5.8
0600			7.7	9.0	9.0	7.6		8.3	7.6			6.0		5.7
0730			6.7	9.1	8.8	7.7	8.6	8.2		7.0		6.1		
0900			6.5		7.5	7.8	8.3		7.6	7.1		6.3	6.3	5.7
1030	9.8	9.0	5.5	9.1	8.0	7.9	8.1		6.8	7.2		6.4	6.1	5.8
1200	10.1	8.9	5.4	9.0	8.4	8.0	7.0	8.2	6.7	7.6		6.5	6.0	5.7
1330	9.7	9.0	5.7	7.5	8.7		8.1	8.3	7.3	7.6		6.8	5.9	5.8
1500	9.5	9.0	6.1	7.2	8.9	8.0	8.0			7.5	7.6	7.1	6.3	5.8
1630	9.4	9.2	6.5	8.2	8.8	8.1	8.1	8.3		7.4	6.7	7.2	6.7	5.7
1800	9.3	9.5	6.3	8.8	8.7	8.3	8.2	7.0	7.3	7.3	5.8	7.2	6.8	5.7
1930	8.5	9.5	6.7	8.9	8.6	8.3	8.3	6.5	7.4	7.2	5.7	7.3	6.9	5.6
2100	8.2	9.7	8.0	9.0	8.3	7.5	8.4	6.7	7.5	7.4	5.5		6.8	
2230	8.3	9.6	8.5		8.0	7.9		6.3	7.6	7.6	5.3	7.3	6.7	
2400	8.9	9.1	8.7	9.0	7.8	8.1	8.4	5.9	7.6	7.6	5.4	6.9	6.6	5.6

DATE	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18
TIME 0130	5.6	5.3	5.4	5.5	5.6	5.5	5.3	5.0	4.4	3.3	4.1	4.1	4.0	3.7
0300 0430		5.3 5.5	5.4	5.6				4.8 4.8	4.4	3.5 3.8	4.1	4.1 4.0		
0600		5.6	5.5					4.7	4.5	4.0	4.2	4.0		
0730 0900					5.6		5.3 5.4	4.7 4.5	4.6	4.1	4.1			
1030					5.5		5.3	4.5	4.5	4.2			4.0	3.7
1200							5.3		4.4				3.9	3.3
1330 1500	5.6 5.5	5.6 5.7					5.4 5.4	4.5 4.7	4.2 3.8				3.8	3.1 3.0
1630	5.4	5.7					5.3	4.7	3.6	4.2			3.8	3.0
1800 1930	5.3 5.3	5.6 5.5						4.6 4.5	3.5	4.1			3.7	
2100	5.7	5.4				5.5	5.3	4.4	3.4	4.0			3.6	
2230	5.9			5.6		5.5	4.9		3.3					
2400	5.7	5.4	5.5	5.5	5.5	5.4	5.0	4.4	3.3	4.0	4.1	4.0	3.6	3.0
DATE	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1
0130	2.9	2.3	2.0	1.7	1.0	1.0	2.0	1.8	2.0	1.9	1.8	1.7	1.1	1.0
0300 0430	2.7 2.6	2.4	1.9 1.7	1.7 1.6	1.0	1.0 0.9	2.0 2.1	1.7 1.7	1.6	1.8		1.7 1.6	1.1	
0600	2.0	2.4	1./	1.5	1.1	0.8	2.0	1.6		1.8		1.0	1.0	
0730				1.4	1.2	0.8	1.9			1.9				1.0
0900 1030		2.4		1.4	1.3	0.9		1.6		2.0	1.8 1.9			0.9
1200				1.3	1.3	1.1		1.7		1.9				
1330 1500	2.6 2.5			1.4	1.4	1.2	1.9	2.0	1.6	1.9	1.9 1.8	1.6		0.9 1.0
1630	2.3				1.3	1.4	1.8	2.1	1.7	2.0	1.7	1.5		1.1
1800						1.5	1.8	2.2	1.7	2.0		1.4		1.1
1930 2100		2.3		1.4 1.3	$\frac{1.3}{1.2}$	1.6	1.7	2.2	1.8	1.9 1.8		1.4		1.2 1.3
2230		2.2		1.1	1.0	2.0		2.3	2.0			1.2		1.3
2400	2.3	2.0	1.7	1.0	1.0	2.0	1.7	2.1	2.0	1.8	1.7	1.1	1.0	1.4
DATE	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15
0130	1.5	1.3	1.6	1.3	1.6	1.7	1.6	1.9	2.0	2.0	1.7	1.4	0.7	1.7
0300 0430	1.5 1.3	1.2	1.4 1.2		1.5	1.7 1.6	1.6	1.8	1.9		1.7		0.9	
0600	1.2	1.0	1.3		1.7	1.5	1.7				1.6		1.1	
0730	1.4				1.6		1.7	1.0				1.4		
0900 1030	1.6				1.5 1.5		1.8	1.8 1.9			1.6 1.7	1.3 1.1		
1200	1.6	1.0			1.6		2.2	2.1			1.8	1.0	1.1	
1330 1500	1.4 1.4	1.2			1.8	1.5	2.2	2.2			1.9 1.9	1.0	1.2	1.7 1.6
1630	1.5	1.4		1.3	2.1	1.6	2.1			2.0	1.8	0.9	2.5	1.5
1800 1930	1.5 1.4	1.5 1.5		1.5 1.5	2.2	1.7 1.6	2.3			1.9 1.8	1.7 1.6	0.9	1.3	1.4
2100	1.4	1.4		1.4	2.1	1.5	2.3		1.9		1.5	0.7	1.4	1.2
2230 2400	1.3	1.5	1.3	1.4 1.5	2.0 1.8	1.6 1.6	2.2	2.2	2.0	1.8 1.7	1.4 1.3	0.5	1.6 1.7	1.2
2400	1.3	1.5	1,3	1.3	1.0	T*0	2,0	2.1	2,0	1.7	1.3	0.4	1. /	1.4

DATE TIME	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29
0130 0300 0430 0600	1.2 1.1 1.1 1.2	1.0	1.0 1.0 0.9 0.9	0.8 0.8 0.9 1.0	1.2	1.0	1.2 1.2 1.1 1.0	1.2 1.2 1.3	1.2	1.5	1.4	1.2 1.2 1.3	1.2	1.2
0730 0900 1030 1200 1330	1.3 1.2 1.1		0.8	0.9 0.9 1.0			1.0 1.1	1.3 1.4 1.4 1.3	1.2 1.3	1.5 1.6				1.2 1.3
1500 1630 1800 1930 2100	1.1 1.0		0.8	1.0	1.2 1.0 0.9 0.8	1.0		1.2	1.3 1.4	1.6 1.5	1.4			
2230 2400 DATE	1.0 0.9 1-30	1.0 1-31	0.9 0.8 2-1	1.1 1.2 1.2	0.8 2-3	1.0 1.1 1.2 2-4	1.1 1.2 2-5	1.2 1.3 1.2 2-6	1.4	1.4	1.3	1.3 1.2 1.2	1.2	1.3 1.2 1.2
TIME								2-0		2-8	2-9	2-10	2-11	2-12
0130 0300	1.2	1.2	1.8 1.7	1.5	1.5	1.6	1.6	1.6	1.6 1.6	1.5	1.5	1.5	1.4	1.2
0430 0600 0730	1.2	1.2 1.3	1.,			1.6 1.7			1.5	1.5				1.2 1.0
0900 1030 1200	1.3	1.3 1.4 1.4				1.,				1.4				
1330 1500 1630	1.2 1.1	1.6 1.7 1.8											1.4 1.3	
1800 1930 2100		1.9	1.7 1.6 1.6		1.5				1.5 1.4	1.4 1.5			1.3	
2230 2400	1.1	1.9	1.5 1.5	1.5	1.6 1.6	1.7 1.6	1.6	1.6	1.4	1.5	1.5	1.5 1.4	1.2 1.2	1,0
DATE	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26
0130 0300 0430 0600 0730	1.1	1.1	1.1	1.2	1.0	1.0	1.2 1.2 1.1	1.2	1.2	1.0	1.0 1.0 0.9 0.8	0.7	0.7 0.6	0.5
0900 1030	1.1					1.0 1.1					0.8		0.6	
1200 1330 1500 1630	1.2 1.3		1.1 1.2	1.2					1.2				0.5	
1800 1930 2100	1 2	1.1		1.1					1.1 1.0					
2230 2400	1.3 1.1	1.0	1.2	1.0	1.0	1.1	1.1	1.2	1.0	1.0	0.7	0.7	0.5	0.5

DATE	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11
0130 0300 0430	0.5	0.5 0.6	0.7	0.9	1.1	1.0	1.2	1.2 1.2 1.3	1.3	1.0	1.2	1.2	1.2	1.3
0600 0730 0900 1030		0.6 0.7	0.7 0.8	0.9				1.3 1.4 1.4		1.0 1.1				
1200 1330 1500 1630			0.8 0.7	1.0		1.0 1.1 1.2		1.5 1.5 1.4	1.3 1.2					
1800 1930				0.9 1.0			1.2 1.1		1.1					
2100 2230 2400	0.5	0.7	0.7 0.8	1.0	1.1 1.0 1.0	1.2 1.1 1.1	1.1	1.4 1.3 1.3	1.1 1.0 1.0	1.1	1.2	1.2	1.2	1.3
DATE	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25
TIME 0130 0300 0430	1.3	1.3	1.4 1.4 1.5	1.6 1.6 1.7	1.7	1.7 1.7 1.8	1.6	1.5	1.6	1.6	1.5	1.5	1.6	1.6 1.7
0600 0730 0900 1030 1200 1330						1.8 1.7	1.6 1.7 1.8 1.7	1.5					1.6 1.7	
1500 1630 1800 1930 2100			1.5 1.6			1.7	1.7			1.6				
2230 2400	1.3	1.3	1.6	1.7	1.7	1.6 1.6	1.6 1.5	1.6	1.6	1.5 1.5	1.5	1.5	1.7	1.7
DATE	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8
0130 0300	1.7	1.6	1.5	1.4	1.5	1.5	1.5	1.6	1.7					
0430 0600 0730 0900				1.4		1.5				ed fro				
1030 1200 1330 1500 1630 1800	1.7 1.6	1.6 1.5	1.5 1.4		1.5 1.4	1.4		1.6 1.7						
1930 2100 2230 2400	1.6	1.5	1.4	1.5	1.4	1.4	1.5 1.6	1.7						

LAKE MICHIGAN - STATION 18. Depth 10 m.
Start 21 November 1963, 1300 CST; end 9 April 1964, 1225 CST.
Instrument serial no. 123, film record 20,101. Initial cal. 0°C; final cal. 0°C.

DATE	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4
0130 0300		10.1	10.0	9.4	9.3	9.0	9.3	9.0	8.9	8.9 8.9	8.6 8.5	8.3 8.2	7.5	7.5
0430 0600 0730			10.0	9.4 9.3	9.3 9.4 9.4	9.0 9.1 9.2	9.3 9.2	8.9 8.9 9.0		8.8		8.2		
0900 1030 1200		10.1	9.9 9.9 9.8 9.8	9.3	9.4 9.5 9.5 9.6	9.2 9.1	9.1	9.0				8.1 8.0		7.5 7.6
1330 1500 1630	10.1	10.0	9.7 9.7 9.6	9.5 9.6 9.5	9.5 9.5 9.4	9.0 9.0 8.9				8.8 8.7		8.0 7.9 7.8		7.6
1800 1930 2100			9.6	9.4 9.4 9.3	9.3 9.1 9.0	8.9 9.0 9.1	9.1 9.0	9.0 8.9		8.7	8.5	7.7		7.0
2230 2400	10.1	10.0	9.5	9.3	9.0	9.2	9.0	8.9	8.9	8.6 8.6	8.4 8.4	7.7 7.6	7.5	7.6
DATE	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18
0130 0300 0430	7.6 7.7	7.7 7.6	7,3	7.1	7.1	7.0	7.0 7.0 6.9	6.9 7.0	6.7 6.7 6.8	6.9	6.7	6.3 6.2	5.8 5.7	5.5 5.5 5.4
0600 0730 0900		7.6 7.5		7.1 7.0	7.1 7.0		•••	7.0	0.0		6.7	6.2 6.1	5.7 5.6 5.5	
1030 1200 1330		7.5 7.4		7.0 7.1				6.9	6.8 6.9	6.9	6.6 6.6 6.5	6.1	5.4	
1500 1630 1800		7.4 7.3	7.3 7.2 7.2					6.9 6.8	***	6.8 6.8 6.7	6.4	6.0	5.4 5.5	
1930 2100 2230			7.1					6.8			6.4 6.3	6.0 5.9		
2400	7.7	7.3	7.1	7.1	7.0	7.0	6.9	6.7	6.9	6.7	6.3	5.9	5.5	5.4
DATE	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1
0130 0300	5.4	5.1	5.0	5.3 5.4	5.3	5.1	5.1	4.9	4.9	4.7 4.7	4.7	4.6 4.6	4.7	4.5
0430 0600 0730 0900				5.4 5.5 5.4 5.4				4.9 4.8 4.7	4.9 4.8 4.8	4.8		4.7	4.7 4.6 4.5 4.4	
1030 1200		5.1 5.0	5.0 5.1	5.3	5.3 5.2			4.7	4.7	4.8 4.7			4.4	4.5
1330 1500 1630 1800	5.4 5.3		5.1 5.2			5.1	5.1 5.0 5.0 4.9	4.8						4.4
1930 2100 2230 2400	5.2 5.2 5.1	5.0	5.2 5.3 5.3	5.3	5.2 5.1	5.2 5.2 5.1 5.1	4.9 4.8 4.8	4.8 4.9 4.9	4.7	4.7	4.7	4.7	4.4 4.5 4.5	4.3 4.2 4.2

DATE	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15
0130 0300 0430	4.2 4.2 4.3	4.2	4.0	4.0	4.0	4.0	4.0	3.9 3.9 4.0	3.9	3.9	3.9	3.9	3.9	3.7
0600 0730 0900									3.9	3.9 4.0				3.7 3.6 3.5
1030 1200 1330 1500		4.2		4.0 4.1					3.8	4.0 3.9				
1630 1800 1930		4.1		4.1 4.0					3.8 3.9				3.9 3.8	
2100 2230 2400	4.3	4.1 4.0	4.0	4.0	4.0	4.0	4.0 3.9	4.0	3.9	3.9	3.9	3.9	3.8	3.5
DATE	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29
0130 0300 0430	3.4	3.2	3.2 3.1	3.0	3.0	3.0 3.0 3.1	3.1	3.0	2.9	2.9	2.9	2.9	2.9	2.9
0600 0730	2 /				3.0									
0900	3.4 3.3				3.1									
1030	3.3													
1200 1330	3.2							3.0						
1500								2.9						
1630 1800														
1930														
2100							3.1							
2230 2400	3.2	3.2	3.1	3.0	3.1	3.1	3.0	2.9	2.9	2.9	2.9	2.9	2,9	2.9
DATE	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12
TIME 0130	2.9	2.9	3.0	2.9	2.8	2 0	2.8	2.7	2.8	2.8	2.8	2.8	2.8	2.7
0300	2.9	2.9	3.0	2.9	4.0	2.8	2.0	2./	2.0	4.0	2.0	2.0	2.0	2.1
0430 0600						2.8				2.8				
0730						2.7				2.7				
0900			3.0										2.0	2 7
1030 1200	2.9		2.9										2.8	2.7 2.8
1330	3.0									2.7				
1500 1630										2.8				
1800					2.8	2.9								
1930 2100					2.7 2.7	2.8				2.8				
2230	2.0	0.0	2.0	0.0	2.8	2.0	2.0	2 7	2.0	2.7	2 0	2 0	2 7	2.0
2400	3.0	2.9	2.9	2.9	2.8	2.8	2.8	2.7	2.8	2.8	2.8	2.8	2.7	2.8

DATE	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26
TIME 0130 0300 0430 0600	2.8	2.7 2.7 2.8	2.7	2.7	2.7 2.7 2.6	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.4	2.4
0730 0900 1030 1200 1330 1500 1630					2.6 2.5			2.4	2.5 2.4		2.4 2.3	2.3		2.4
1800 1930 2100 2230 2400	2.8	2.8 2.7 2.7	2.7	2.7	2.5	2.4	2.4	2.5	2.4	2.4	2.3	2.4	2.4	2.3
DATE	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11
TIME 0130 0300 0430	2.3	2,4	2.4	2.3	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.1
0600 0730 0900				2.3 2.2	2.2 2.1									
1030 1200 1330 1500 1630							2,1 2,2		2.2	2.2				
1800 1930 2100										2.1 2.2	2.2			
2230 2400	2.3	2,4	2.4	2,2	2.1	2.1	2,2	2.2	2.1	2.2	2.1	2.1	2.1	2.1
DATE	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25
0130 0300 0430 0600 0730	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2
0900 1030 1200 1330 1500			2.1 2.2											
1630 1800 1930 2100 2230											2.1			
2400	2,1	2.1	2,2	2.1	2,1	2.1	2.1	2.1	2,1	2.1	2.2	2.2	2.2	2.2

LAKE MICHIGAN, STATION 18, 10 m continued.

DATE 3-26 3-27 3-28 3-29 3-30 3-31 4-1 4-2 4-3 4-4 4-5	4-6	4-7	4-8
TIME 0130 2.2 2.2 2.2 2.2 2.3 2.3 2.2 2.2 2.1 2.1 2.1 0300	2.1	2.0 2.1	2.1
0430 2.2 2.2 0600 2.3 2.1			
0730 2.2	2.1		
0900 2.1	2.2		2.1
1030 1200 2.3 2.3			2.2
1330 2.2 2.3			
1500 2.1	2.2		
1630 2.2	2.1		
1800 1930 2,1			
2100 2.0			
2230 2.0	2.1		2.2
2400 2.2 2.2 2.2 2.3 2.2 2.2 2.1 2.1 2.1 2.1	2.0	2.1	2.3
DATE 4-9 4-10 4-11 4-12 4-13 4-14 4-15 4-16 4-17 4-18 4-19	4-20	4-21	4-22
TIME 0130 2,2			
0300			
0430			
0600			
0730 0900			
1030			
1200 2.2			
1330 End			
1500 End 1630			
1800			
1930			
2100			
2230 2400			

LAKE MICHIGAN - STATION 18. Depth 15 m. Start 21 November 1963, 1300 CST; end 9 April 1964, 1225 CST. Instrument serial no. 365, film record 20,102. Initial cal. 0°C; final cal. -0.5°C.

DATE	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4
TIME 0130		10.1	9.9	9.4	9.4	8.9	9.0	8.9	8.9	8.7	8.2	7.6	7.4	7.5
0300		10.1	9.9	9.5	9.3	9.0	5.0	0.5	0.,	8.7	8,2	7.5	7.4	,,,
0430			9.8	,,,,	9.3	9.0				8.6	8.1	7.6	7.5	
0600			9.8		9.1	9.1					8.0			
0730			9.7	9.5	9.0	9.2			8.9		7.9		7.5	
0900		10.1		9.4	8.9				8.8	8,6	7.8		7.6	7.5
1030		10.0		9.3			9.0			8.5	7.7			7.4
1200 1330	10.0		9.7	9.3 9.2	8.9	9.2	8.9				7.7			7.4 7.3
1500	10.0	10.0	9.0	9.2	9.0	9.1	8.9			8.5	7.6	7.6		1.5
1630		9.9	9.6	9.3	5.0	9.1	9.0	8.9		8.4	7.6	7.5		
1800		,,,	9.5	9.4		9.0	,,,	9.0			7.5	7.5		
1930			9.4	9.4					8,8	8.4	7.6			
2100			9.3	9.5			9.0	9.0	8.7	8.3				7.3
2230	10.0			9.5	9.0		8.9	8.9		8.3			7.6	7.4
2400	10.1	9.9	9.3	9.4	8.9	9.0	8.9	8.9	8.7	8.2	7.6	7.5	7.5	7.4
DATE	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18
TIME 0130	7.4	7.1	7.0	7.0	6.9	6.9	6.7	6.6	6.3	5.6	5.4	5.4	5.1	5.1
0300	/ • -	7.0	7.0	7.0	0.5	0.5	0.7	0.0	6.2	5.5	3.4	5.7	3.1	5.2
0430		,,,,								5.5				
0600		7.0								5.4				5.2
0730		7.1				6.9			6.2	5.4				5.3
0900						6.8			6.1	5.3		5.4		
1030						6.8		6.6	6.0			5.3	5.1	5.3
1200	7.4				6.9	6.7		6.5		5.3 5.4		5.2 5.2	5,0	5.4
1330 1500	7.3				7.0				6.0	5.5		5.1		5.4
1630								6.5	5.9	3.5		3.1	5.0	5.3
1800	7.3							6.4	5.9				4.9	
1930	7.2			7.0					5.8				5.0	
2100				6.9	7.0		6.7	6.4	5.8	5.5			5.1	
2230		7.1	7.0		6.9		6.6	6.3	5.7	5.4				
2400	7.2	7.0	7.1	6.9	6.9	6.7	6.6	6.3	5.7	5.4	5.4	5.1	5.1	5.3
DATE	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1
TIME				, ,	, -			, -			, ,	, -	, -	, ,
0130 0300	5.3	5.2	5.1	4.9	4.7	4.6	4.6	4.7	4.5 4.5	4.4	4.3	4.1	4.1	4.1
0430				4.6					4.6					
0600				4.7	4.7				4.0					
0730				4.8	4.8									
0900					4.8									
1030					4.7			4.7			4.3			
1200			5.1					4.6			4.2			
1330			5.0	4.8			, ,	4.6	4.6					
1500 1630		5.2	5.0 4.9	4.9			4.6 4.7	4.5 4.4	4.5					
1800		5.1	4.9	4.9	4.7		4.7	4.4	4.5					
1930		3.1	4.8	4.8	4.6		4.6		4.4					
2100							4.6	4.4			4.2			
2230	5.3		4.8	4.8			4.7	4.5			4.1			4.1
2400	5.2	5.1	4.9	4.7	4.6	4.6	4.7	4.5	4.4	4.4	4.1	4.1	4.1	4.0

DATE	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15
0130 0300	4.0 4.0	4.0	3.9	3.7	3.6 3.7	3.7	3.8	3.9	3.8	3.5	3.3	3.2	3.2	3.3
0430 0600 0730 0900	4.1		3.9 3.8	3.7 3.6	3.7		3.9		3.8 3.7	3.5				
1030 1200 1330 1500			3.8 3.7					3.9		3.4 3.3				3.3 3.4
1630 1800 1930								3.8	3.7				3.2 3.3	
2100 2230 2400	4.1	4.0	3.7	3.6	3.7	3.7	4.0	3.8	3.6 3.5 3.5	3.3	3.3 3.2 3.2	3.2	3.3	3.4
DATE	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29
TIME 0130 0300 0430	3.4 3.4 3.3	3.2	2.9	2.9	2.9	3.0	3.0	3.1	3.1	3.1	3.1 3.1 3.0	2.8	2.9	2.8
0600 0730 0900 1030	3.3	3.1			2.9 3.0						3.0 2.9	2.8		
1200 1330 1500 1630 1800	3.2	3.1 3.0 3.0 2.9												
1930 2100 2230											2.9 2.8	2.9 3.0	2.9	
2400	3.2	2.9	2.9	2.9	3.0	3.0	3.0	3.1	3.1	3.1	2.8	3.0	2.8	2.8
DATE	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12
0130 0300 0430 0600	2.8	2.8	2.8	2.8	2.8	2.8 2.8 2.9	2.8	2.8	2.7	2.7	2.7	2.7	2.8 2.8 2.7	2.8
0730 0900									2.8					
1030 1200 1330 1500 1630 1800		2.8 2.7				2.9	2.8 2.9 2.9					2.7 2.8	2.7 2.6 2.6 2.7	2.8 2.7
1930 2100 2230 2400	2.8	2.7	2.8	2.8	2.8	2.8	2.8	2.8 2.7	2.8 2.7	2.7	2.7	2.8	2.7	2.7

LAKE MICHIGAN, STATION 18, 15 m continued.

DATE	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26
TIME 0130	0.7	0.7	0.7	0 (0.5	0.5	0.5							
0300	2.7	2.7	2.7	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.4	2.5	2.4
0430														
0600														
0730														
0900														
1030 1200						2.5								
1330			2.7			2,4								
1500			2.6											
1630														
1800											2.5			
1930 2100											2.4			
2230				2,6										
2400	2.7	2.7	2.6	2.5	2.5	2.4	2.5	2.5	2.5	2.5	2.4	2.4	2.5	2.4
DATE	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11
TIME	2 /	· ·												
0130 0300	2.4	2,4	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.6	2.4
0430										2.5				
0600										2.5				
0730														
0900													2.6	
1030 1200					2.3								2.5	
1330					2.4	2.3								
1500					207	2.4								
1630														
1800												2.5		
1930 2100		2 . 4			2 /							2.6		
2230		2.3			2.4								2.5	
2400	2.4	2.3	2.3	2,3	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.6	2.4	2.4
DATE	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25
TIME 0130	2.4	2.4	2.4	2,5	2.6	0.7	0 /	0 /	0.5					
0300	2.4	2.4	2.4	2,3	2.0	2.7	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.8
0430														2.8
0600														2.7
0730 0900														2.7
1030					2.6									2.6 2.5
1200					2.7									2.3
1330					-								2.5	
1500			2.4			_							2.6	
1630 1800			2.5	2.5		2.7					2.5		2.6	
1930				2.0		2.6					2.6		2.7	
2100						2,6							2.7	
						2.5					2.6		2.8	
2230													2.0	
2230 2400	2.4	2.4	2.5	2.6	2,7	2.5	2.4	2.4	2.5	2.5	2.5	2,5	2.8	2.5

LAKE MICHIGAN, STATION 18, 15 m continued.

DATE	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8
0130 0300 0430 0600	2.5 2.6 2.7	2.7 2.7 2.6	2.6	2.5	2.6	2.6	2.5	2.5	2.4	2.3	2.4	2.5	2.5	2,6
0730 0900 1030 1200 1330	2.7 2.8	2.0	2.6		2.6 2.5			2.5		2.3				
1500 1630 1800 1930 2100	2.8			2.5	2.5 2.6	2.6		2.4	2.4		2.4		2.5 2.6	
2230 2400 DATE	2.7 2.7 4-9	2.6 4-10	2.5 4-11	2.6 4-12	2.6 4-13	2.5 2.5 2.5 4-14	2.5 4-15	2.4 4-16	2.4 2.3 2.3 4-17	2.4 4-18	2.5 4-19	2,5 4-20	2.6 4-21	2.6 4-22
0130 0300 0430 0600 0730 0900 1030 1200	2.6													
1330 1500 1630 1800 1930 2100 2230	2.6 End o recor													

LAKE MICHIGAN - STATION 18. Depth 22 m. Start 21 November 1963, 1300 CST; end 9 April 1964, 1225 CST. Instrument serial no. 364, film record 20,103. Initial cal. 0°C; final cal. Indet.

DATE	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4
TIME 0130		11.0	10.9	10.4	10.3	10.0	10.0	10.0	10.0	9.7	9.1	8.6	8.5	8.3
0300 0430 0600 0730 0900 1030 1200 1330	11.0	11.0	10.9 10.8 10.7 10.6	10.4 10.3	10.3 10.2 10.2 10.1 10.0				10.0 9.9 9.8	9.7 9.6 9.6 9.5 9.5	9.0 9.0 8.9 8.8 8.7 8.7	8.6 8.5	8.5 8.3	8.3
1500 1630 1800 1930 2100 2230		10.9	10.6 10.5 10.4						9.8 9.7	9.4 9.3 9.3 9.2 9.1	8.6			8.4
2400	11.0	10.9	10.4	10.3	10.0	10.0	10.0	10.0	9.7	9.1	8.6	8.5	8.3	8.4
DATE	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18
0130 0300 0430	8,4	8.3	8.3 8.1	8.1	8,0	7.9	7.9	7,9	7.8 7.8 7.7	6.8 6.7 6.6	6.4 6.3	6.3	6.0	6.0
0600 0730 0900 1030 1200 1330 1500	4.0			8.1 8.0	8.0 7.9				7.7 7.6 7.5 7.3 7.2 7.1	6.5		6.3 6.2 6.1 6.1	6.0 5.9	
1630 1800 1930 2100	8.4								7.1 7.0					
2230 2400	8.3	8.3	8.1	8.0	7.9	7.9	7.9	7.9	7.0 6.9	6.4	6.3	6.0	5.9 6.0	6.0
DATE	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1
0130 0300 0430 0600	6.0	5.9	5.9	5.7	5.8	5.7	5.7	5.7	5.7	5.5	5.5	5.4 5.4 5.3	5.2	5.1
0730 0900 1030 1200 1330					5.8 5.7				5.7 5.6		5.5 5.4		5.2 5.1	
1500 1630 1800 1930 2100	6.0		5.9 5.8 5.7	5.7 5.8					5.6 5.5			5.3 5.2		
2230 2400	5.9 5.9	5.9	5.7	5 . 8	5.7	5.7	5.7	5.7	5.5	5.5	5.4	5.2	5.1	5.1

LAKE MICHIGAN, STATION 18, 22 m continued.

DATE	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15
TIME 0130 0300	5.1	5.1	5.1	5.0	4.9	4.9	4.9	4.9	4.8	4.5	4.3	4.2	4.2	4.1
0430														4.1
0600														4.2
0730 0900									4.8 4.7					
1030									4.7					
1200														
1330 1500			5.1 5.0							4.5			4.2	
1630			3.0					4.9		4.4	4.3		4.1	
1800								4.8			4.4			
1930 2100				5.0					4.7		4.4			
2230				4.9					4.6	4.4	4.3			4.2
2400	5.1	5.1	5.0	4.9	4.9	4.9	4.9	4.8	4.6	4.3	4.2	4.2	4.1	4.1
DATE	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29
TIME 0130 0300	4.1	4.1	4.1	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.9	3.9	3.9
0430			4.0			4.0								
0600						4.1								
0730 0900														
1030						4.1 4.0								
1200														
1330														
1500 1630														3.9
1800														3.8
1930														
2100 2230											4.0 3.9			
2400	4.1	4.1	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.9	3.9	3.9	3.8
DATE	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	. 2-8	2-9	2-10	2-11	2-12
TIME 0130	2.0	3.8	3.8	2.7	3.7	2.6	2.6	2.6	2.6	2.6	2 5	2 5	0.7	^ ′
0300	3.8	3.8	3.8	3.7	3./	3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.4	3,4
0430														
0600														
0730 0900														
1030														
1200					3.7							3.5		
1330 1500					3.6							3.4		
1630														
1800														
1930 2100										3.6 3.5				3.4 3.3
2230			3.8											3.2
2400	3.8	3.8	3.7	3.7	3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.4	3.4	3.2

DATE	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26
0130 0300 0430 0600	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2 3.2 3.1	3,1	3.0	3.0	3.0	3.0
0730 0900 1030 1200					3.2 3.1									
1330 1500 1630 1800 1930 2100					3.1 3.2					3.1				
2230 2400	3.2	3.2	3.2	3.2	3,2	3,2	3.2	3.2	3.1	3.0	3.0	3.0	3.0	3,0
DATE TIME	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11
0130 0300 0430 0600 0730 0900	3.0 2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2,9	2.9	2,9
1030 1200 1330 1500 1630 1800 1930 2100														2.9 3.0
2230 2400	2.9	2.9	2,9	2.9	2.9	2 . 9	2.9	2.9	2.9	2.9	2.9	2.9	2.9 3.0	3.0
DATE TIME	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25
0130 0300 0430 0600 0730	3.0 2.9	3.0	2.9	2.9	2.9 2.9 3.0	3.0 3.0 2.9	2.9	2.9	2.9	2.9	2.9	3.0	2.9	3.0
0900 1030 1200 1330	2.9 3.0				3.0 2.9							3.0 2.9		3.0 2.9
1500 1630 1800 1930 2100			2.9 3.0 3.0 2.9		2.9								2.9	
2230 2400	3.0	3.0	2.9	2.9	3.0 3.0	2,9	2.9	2.9	2.9	2.9	2.9	2.9	3.0	2.9

LAKE MICHIGAN, STATION 18, 22 m continued.

DATE	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8
TIME 0130 0300 0430 0600	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2,9 2,9 3.0	2.9	3.0 3.0 2.9	2.9	2.9
0730 0900 1030 1200 1330										3.0 2.9				
1500 1630 1800 1930 2100											2.9 3.0			
2230 2400	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.0	2.9	2.9	2.9
DATE	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20	4-21	4-22
0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930 2230 22400	2.9													

LAKE MICHIGAN - STATION 18. Depth 30 m. Start 21 November 1963, 1300 CST; end 9 April 1964, 1225 CST.

Instrument serial no. 283, film record 20,104. Initial cal. 0°C; final cal. Indet.

DATE 11-21 11-22 11-23 11-24 11-25 11-26 11-27 11-28 11-29 11-30 12-1 12-2 12-3 12-4 TIME 0130 10.3 10.1 9.5 8.7 9.0 7.8 9.0 9.1 8.9 8.3 7.8 7.8 8.0 0300 10.0 9.6 7.8 9.1 9.2 9.0 9.1 8.3 7.8 0430 9.8 9.7 7.3 9.2 9.3 9.1 9.0 8.2 7.7 0600 9.5 9.6 8.5 9.3 8.1 7.8 7.6 8.0 0730 8.8 9.0 9.0 9.3 9.3 8.9 8.0 7.9 7.3 7.9 8.8 0900 10.3 9.4 8.0 9.2 9.2 8.0 7.5 7.9 1030 8.9 9.8 7.1 9.0 9.3 9.0 7.9 7.8 7.8 1200 10.0 9.8 8.0 9.1 9.2 8.9 7.9 7.9 7.9 7.8 1330 10.4 10.1 9.7 7.5 9.2 9.6 8.8 7.8 7.1 8.0 7.7 1500 10.3 10.0 9.7 8.9 9.3 9.4 8.7 7.8 1630 10.1 9.6 9.0 9.5 9.5 8.6 1800 10.3 10.0 9.2 9.4 9.6 9.5 9.2 8.6 1930 8.5 9.5 9.0 9.4 9.1 8.5 7.8 7.7 10.1 2100 10.1 9.7 7.2 9.3 8.4 7.7 7.8 8.0 2230 10.0 9.5 9.8 8.7 9.2 9.1 8.4 7.8 7.8 2400 10.3 10.1 9.5 9.5 8.9 9.2 9.0 9.1 8.9 8,3 7.7 7.8 8.0 7.8 DATE 12-5 12-6 12 - 712-8 12-9 12-10 12-11 12-12 12-13 12-14 12-15 12-16 12-17 12-18 TIME 0130 7.8 7.2 7.4 7.2 7.2 7.0 7.0 7.0 5.9 5.8 5.7 5.4 5.7 7.4 0300 7.2 6.9 5.8 5.7 5.4 5.7 7.7 0430 7.4 7.2 7.0 6.8 5.8 5.5 5.8 7.3 7.0 6.8 5.7 5.7 0600 0730 7.4 7.2 7.1 6.6 5.6 5.8 5.9 0900 7.5 7.1 7.2 6.4 5.6 5.8 1030 7.2 7.3 6.3 5.7 1200 7.7 7.2 6.2 5.7 5.5 7.3 5.8 1330 7.6 1500 7.5 7.1 1630 7.3 6.2 5.8 5.5 6.1 5.6 1800 5.9 6.1 5.5 1930 7.5 7.5 7.3 2100 7.4 7.4 7.4 6.0 5.9 5.4 5.6 2230 7.4 6.0 5.8 5.7 2400 7.4 7.3 7.4 7.2 7.3 7.0 7.0 7.0 5.9 5.8 5.7 5.4 5.7 5.7 DATE 12-19 12-20 12-21 12-22 12-23 12-24 12-25 12-26 12-27 12-28 12-29 12-30 12-31 1-1 TIME 0130 5.7 5.6 5.5 5.1 5.1 5.0 5.0 5.0 5.0 4.9 4.9 4.7 4.5 4.5 0300 4.8 4.5 4.4 0430 5.1 0600 5.0 4.7 4.4 4.5 0730 4.6 4.3 4.6 0900 5.5 4.4 5.6 5.4 1030 5.1 1200 5.5 5.3 5.2 4.4 1330 5.7 5,2 4.6 4.5 4.6 1500 5.6 4.5 4.5 5.2 1630 1800 5.5 5.1 1930 5.4 2100 5.2 5.0 2230 4.9 5.1 2400 5.6 5.4 5.1 5.1 5.0 5.0 5.0 5.0 4.9 4.9 4.8 4.5 4.5 4.5

DATE	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15
0130 0300	4.5	4.5	4.4	4.3	4.3	4.2	4.2	4.2	4.0	4.0	3.9	3.8	3.8	3.8
0430 0600 0730 0900			4.4 4.3							3.9	3.9 3.8	3.8 3.7		
1030 1200 1330				4.3 4.2				4.2 4.1						
1500 1630 1800					4.3							3.7 3.8		
1930 2100 2230		4.5 4.4		4.2	4.2									3.8 3.7
2400	4.5	4.4	4.3	4.3	4.2	4.2	4.2	4.1	4.0	3.9	3.8	3.8	3.8	3.7
DATE	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29
0130 0300	3.7	3.5	3.4	3.4	3.4	3.4	3.3	3.4	3.5	3.6	3.2	3.1	3.1	3.0
0430 0600 0730						3.4		3.4 3.5	3.5 3.6					
0900 1030 1200		3.5 3.4		3.4 3.3		3.3				3.6 3.5		3.1		
1330 1500				3.3						3.5		3.2		3.0
1630 1800 1930	3.7 3.6			3.4			3.3 3.4			3.4 3.4 3.3	3.2 3.1	3.2 3.1		3.1
2100 2230	3,5									3.3 3.2				3.1 3.0
2400 DATE	3.5 1-30	3.4 1-31	3.4 2-1	3.4 2-2	3.4 2-3	3.3 2-4	3.4 2-5	3.5 2-6	3.6 2-7	3.2 2-8	3.1 2-9	3.1 2-10	3.1 2-11	3.0
TIME														2-12
0130 0300 0430 0600 0730 0900	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.9	2.8	2.9	2.8	2.8
1030 1200														2.8 2.7
1330 1500 1630 1800	3.0									2.9 2.8				2.7 2.8
1930 2100 2230	3.1 3.0										2.8 2.9			
2400	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.8	2.9	2.9	2.8	2.8

DATE	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26
TIME 0130 0300 0430	2.8	2.8	2.8	2.8	2.8	2.9	2.8	2.8	2.7	2.7	2.7 2.7 2.6	2.7	2.7	2.5
0600 0730 0900 1030		2.8 2.9			2.8						2.7		2.7 2.6	
1200 1330 1500 1630 1800						2.9 2.8		2.8 2.7					2.6 2.5	
1930 2100 2230 2400	2.8	2.9 2.8 2.8	2.8	2, 8	2,9	2.8	2.8	2.7	2.7	2.7	2.7	2,7	2.5	2.5
DATE	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11
TIME 0130 0300 0430 0600	2.5	2,6	2.6	2.6	2.7	2.6 2.6 2.5	2,5	2.5	2.5	2.6	2.5	2.5	2,5	2.5
0730 0900 1030 1200 1330 1500 1630	2.5			2.6	2.7	2.5 2.6			2.5	2.6				2,5 2,6
1800 1930 2100 2230	2.6			2.7	2.0					2.5				
2400	2.6	2.6	2 . 6	2.7	2.6	2.6	2.5	2.5	2.6	2.5	2.5	2.5	2.5	2.6
DATE	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25
0130 0300 0430	2.6	2.6	2.6	2.6	2.8	2.7 2.7	2.6	2.4	2.4 2.5	2.5	2.5	2.5	2.5	2.6 2.5
0600 0730 0900	2.6 2.5		2.6	2.7		2.6	2.6 2.5				2.5		2.6 2.7	
1030 1200 1330	2.5		2.7		2.8 2.7								2.7 2.8	
1500 1630 1800 1930 2100	2.0		2.6	2 7							2.6 2.5		2.8 2.7 2.7 2.6	2.5 2.6 2.7
2230 2400	2.6	2.6	2.6	2.7	2.7	2.6	2.5	2.4	2.5	2.5	2.5	2.5	2.6	2.7

LAKE MICHIGAN, STATION 18, 30 m continued.

DATE	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8
TIME 0130	2.7	2.6	2,6	2.5	2.4	2.3	2.3	2.3	2.3	2.3	2.5	2.5	2.5	2.5
0300														
0430														
0600										2.3				
0730										2.4				
0900	2.7	2.6		2.5										
1030	2.6	2.7		2.4										
1200														
1330														
1500														
1630		2.7	2.6		2.4									
1800		2.6	2.5		2.3									
1930														
2100														
2230	0.6													
2400	2.6	2.6	2.5	2.4	2.3	2.3	2.3	2.3	2.3	2.4	2.5	2.5	2.5	2.5
DATE	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20	4-21	4-22
TIME														
0130	2.5													
0300														
0430														
0600 0730														
0900														
0900 1030	2.5													
0900 1030 1200	2.5													
0900 1030 1200 1330	2.5													
0900 1030 1200 1330 1500	2.5													
0900 1030 1200 1330 1500 1630	2.5													
0900 1030 1200 1330 1500 1630 1800	2.5													
0900 1030 1200 1330 1500 1630 1800 1930	2.5													
0900 1030 1200 1330 1500 1630 1800	2.5													

LAKE MICHIGAN - STATION 18. Depth 60 m. Start 21 November 1963, 1300 CST; end 9 April 1964, 1225 CST. Instrument serial no. 250, film record 20,105. Initial cal. 1.0°C; final cal. Ass. 0°C.

DATE	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4
TIME 0130		3.5	3.3	3.3	3.6	3.2	3.5	3.5	3.3	3.4	3,3	3.4	3.3	3.4
0300						3.2	3.5		3.3		3.3		3.1	3.4
0430			3.3			3.3	3.6		3.2		3.2			3,5
0600			3.4		3.6	3.5	3.5				3.2		3.1	3.4
0730				3.3	3.4	3.4	3.4				3.3		3.3	3,3
0900		3.5		3.4	3,4	3.3			3.2		3.3	3.4	3.2	3.2
1030		3.4			3.5				3.4		3.4	3.3	3.3	3.3
1200			3.4	3.4					3.5			3.5	3.2	3.5
1330	3.7		3,3	3.3	3,5	3.3						3.5		3.6
1500	3.6	3.4			3.6	3.2						3.6	3.2	3.6
1630	3.6	3,3							3.5		3.4	2.6	3.3	3,5
1800	3,5	3.3		3.3	3.6	3.2	2 /		3.4		3.5	3.6	3.4	3.9 3.7
1930 2100	3.5 3.6	3.4		3.5	3.4 3.4	3,3 3,3	3.4 3.5				3.4	3.7 3.8		3.7
2230	3.5				3,4		3.3					3.0		3.6
2400	3.5	3.4	3.3	3.5	3,3	3.4 3.4	3.5	3.5	3.4	3.4	3.4	3.8	3.4	3.6
DATE	12-5	12-6	12-7	12-8	12-9		12-11							12-18
TIME	12-3	12-0	12-7	12-0	12-9	12-10			12-13		12-13			
0130	3.6	3.0	3.8	3.2	3.0	3.1	3.4	3.1	3.3	3.4	4.1	4.0	4.8	3.5
0300	3.6		3.7	3,2			3.4	3.1			4.7	5.2	5.0	3.5
0430	3.3		3.6	3.1			3,5	3.0			4.9	4.9	5.2	3.6
0600	3.1		3.5	3.2	3.0	3.1					3.9	5.2	5.2	3.7
0730		3.0	3.5	3,3	3.1	3.2				3.4	3.6	5.0	5.0	3.9
0900		3.1	3.4				3.5	3.0		3.5	3.7	5.3	5.0	4.2
1030	3.1		3.4	3.3			3,4	3.1		3.7	4.2	5.1	4.8	3.8
1200	3.2		3.3	3.2		3,2	3.4			3.7	5.1	4.7	4.5	3.6
1330	2.2		3.2	3.1		3.3	3.3	0.1	0.0	3.6 3.5	5.2	4.0	4.0	3.5
1500	3.2	3.1	3.1	3.1	2 1		3.2 3.2	3.1 3.2	3.3 3.2	3.5	5.0	3.9	3.8 3.7	3.4
1630 1800	3.1 3.1	3.0 3.0		3.3	3.1 3.0		3.3	3.2	3.2	3.5	4.9 3.7	4.1	3.8	
1930	3.2	3.2		3.2	3.0	3.3	٠, ٦			3.8	3.8	4.4	3.6	
2100	3.2	3.2	3.1	3.1		3.4			3.2	3,9	3.6	4.5	3,6	
2230	3.2	3.6	3.2	3.1	3.0	J. 7			3.3	3.9	3.6	4.6	3.5	
2400	3,1	3.6	3.2	3.0	3.1	3.4	3.3	3.2	3.4	3.7	3.5	4.7	3.5	3.4
DATE	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1
TIME						^ ^	4.0				2 /	2 (2.1	0.1
0130	3.4	4.0	4.3	4.3	4.0	3.9	4.0	4.4	4.3	4.0	3.4	3.4	3.1	3.1
0300	2 (4.3		4.2	4.0	3.9		4.4				0 /		
0430	3.4	4.6	4.3	4.1	3.9	3,8		4.3	4.3			3.4		
0600 0730	3.6 3.7	4.4 4.2	4.3 4.4	4.3	3.8 3.9	3.9	4.0		4.3			3.3		
0900	3.7	4.4	4.4		3.8	3.9	4.1		4.2					3.1
1030	3.5	4.5	4.4	4.3	3.7	4.0	4.2					3,3		3.0
1200	3.4	3.9	4.3	4.2	3.4	4.0	4.2			4.0		3.2		3.0
1330	3.6	4.3	4,5	4.0	3.5		4.3			3.9		2,2		
1500	3.8	.,,,		4.3	3.9		4.4		4.2	3.9				
1630	4.4			4.0	4.0		4.4		4.1	3.8				
1800	4.1			4.1	4.0		4.5			3.7				
1930	3.9			4.2	3.9		4.5		4.1	3.6		3.2		
2100	4.1			4.3	3.9		4.6		4.0	3.4		3.1		
2230	4.3			4.2	3.8		4.5							
2400	4.4	4.3	4.3	4.1	3.8	4.0	4.5	4.3	4.0	3.4	3.4	3.1	3.1	3.0

			-		-									
DATE	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15
TIME 0130 0300	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.9	2.9	2.6
0430 0600 0730 0900												2.9 2.8	2.9 2.8	2.6
1030 1200 1330 1500													2.8 2.7	2.5
1630									3.0					
1800 1930 2100									2.9			2.8 2.9	2.7 2.6	
2230 2400	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.9	2.9	2.6	2.5
DATE	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29
TIME	1-10	1-1/	1-10	1-19	1-20	1-21	1-22	1-23	1-24	1-23	1-20	1-2/	1-28	1-29
0130 0300	2.3	2.4	2.4	2.2	2.1	2.1	2.5	2.2	2.0	2.0	2.0	2.0	2.0	2.0
0430	2.3													
0600 0730	2.5	2.4				2.1								
0900		2.4				2.2	2.5	2.2						
1030							2.4	2.1						
1200		2.3				2.2								
1330 1500	2.5	2.4	2 4			2.3								
1630	2.4		2.4			2.3		2.1						
1800	2.4		2.5					2.0						
1930	2.3			2.2			2.4							
2100 2230				2.1			2.3							2.0 1.9
2400	2.3	2.4	2.3	2.1	2.1	2.4	2.3	2.0	2.0	2.0	2.0	2.0	2.0	1.9
DATE	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12
TIME	1 30	1-31										2-10	2-11	2-12
0130	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.8	1.9	1.8	1.8	1.7	1.7	1.8
0300 0430							2.0 1.9		1.9 2.0		1.8 1.7	1.7	1.7 1.8	
0600							1.9		2.0		1.7	1.8	1.0	1.8
0730										1.8				1.7
0900									2.0	1.9				
1030 1200			1.9						1.9			1.8 1.7		
1330			2.0									1.,		
1500														
1630							1.9		1.0	1.9				
1800 1930		1.9					1.8	1.8	1.9 1.8	1.8				
2100		2.0						1.9	1.0					
2230					• •			1.0						
2400	1.9	2.0	2.0	2.0	2.0	2.0	1.8	1.9	1.8	1.8	1.7	1.7	1.8	1.7

DATE	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26
0130 0300 0430	1.7	1.8	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.5	1.5	1.6 1.6 1.7	1.7	1.6
0600 0730 0900 1030 1200 1330	1.7 1.8	1.8							1.6		1.5 1.6 1.6	1.7 1.8 1.8	1.7	1.6
1500 1630 1800 1930 2100									1.5		1.7			
2230 2400	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.5	1.5	1.6	1.7	1.6	1.5
DATE	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11
0130 0300 0430 0600 0730 0900	1.5 1.5 1.4	1.3	1.3	1.3	1.3	1.3	1,3	1.3	1.4	1.3	1.3	1.3	1.3	1,3
1030 1200 1330 1500 1630 1800 1930	1.4	1.3 1.2						1.3 1.4	1.4					1.3 1.2
2100 2230		1.2												
2400 DATE	1.3 3-12	1.3 3-13	1.3 3-14	1.3 3-15	1.3 3-16	1.3 3-17	1.3 3-18	1.4 3-19	1.3 3-20	1.3 3-21	1.3	1.3	1.3	1.2
TIME 0130 0300 0430 0600	1.2	1.2	1.2	1.1	1.0	1.0	1,0	1.0	1.0	1.0	1.0	3-23 1.0	3-24 1.0	3-25 1.0
0730 0900 1030 1200 1330 1500														
1630 1800 1930 2100 2230			1.2 1.1	1.1 1.0										
2400	1.2	1.2	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

LAKE MICHIGAN, STATION 18, 60 m continued.

DATE	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8
TIME 0130 0300 0430 0600	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.0	1.0 1.0 0.9	1.1	1.1	1.1	1.1
0730 0900 1030 1200 1330 1500				1.0										
1630 1800 1930 2100										0.9				
2230 2400	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.1	1.1	1.1	1.1
DATE TIME	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20	4-21	4-22
0130 0300 0430 0600 0730 0900 1030 1200 1500 1630 1800 1930 2100 2230 2400	1.1 1.1 End o													

LAKE MICHIGAN - STATION 20. Depth 10 m. Start 7 December 1963, 0930 CST; end 15 April 1964, 1830 CST.

Instrument serial no. 160, film record 20,113. Initial cal. 0.5°C: final cal. 0.3°C. 12-7 12-8 12-9 12-10 12-11 12-12 12-13 12-14 12-15 12-16 12-17 12-18 12-19 12-20 DATE TIME 0130 7.0 7.0 7.5 7.3 6.3 6.2 5.7 5.6 5.1 5.0 7.1 7.2 7.1 7.2 7.1 6.2 5.7 5.5 0.300 7.0 0430 7.1 6.9 7.0 5.6 5.5 6.8 5.4 0600 7.1 5.1 0730 7.2 7.3 6.7 5.3 5.0 6.2 5.2 0900 7.2 7.1 7.2 5.0 1030 6.8 7.3 7.2 6.9 6.1 6.2 4.9 1200 6.9 7.0 7.0 5.6 1330 7.0 7.1 6.1 5.7 1500 7.1 7,2 7.2 6.1 6.0 1630 7.3 6.3 5.9 5.2 7.2 7.1 1800 7.3 5.9 5.1 6.4 1930 7.4 5.8 5.0 2100 7.4 6.4 5.8 5.0 7.1 7.5 7.2 6.7 2230 7.0 7.5 7.4 7.1 6.6 6.3 5.7 5.1 2400 7.2 7.3 7.0 7.0 7.5 7.4 7.1 6.5 6.2 5.7 5.7 5.1 5.0 4.9 DATE 12-21 12-22 12-23 12-24 12-25 12-26 12-27 12-28 12-29 12-30 12-31 1-1 1-2 1-3 TIME 0130 4.9 4.5 4.5 4.4 4.3 4.2 4.2 4.1 3.9 3.7 3.7 3.7 3.8 3.7 4.3 0300 4.9 4.3 4.2 4.1 3.8 3.7 3.7 0430 4.8 4.3 3.7 4.5 3.6 0600 4.8 4.4 4.2 4.1 3.8 3.6 0730 4.7 4.2 4.1 4.0 3.7 3.6 0900 4.6 4.2 4.0 3.5 4.1 1030 4.5 4.1 1200 3.7 1330 4.2 3.8 1500 4.1 4.1 3.7 3.5 3.7 1630 4.2 3.8 3.6 3.8 3.6 1800 4.5 4.4 4.1 3.7 1930 4.6 4.3 4.0 3.6 2100 4.4 3.7 2230 4.5 4.0 3.8 2400 4.6 4.5 4.5 4.3 4.2 4.2 4.1 3.9 3.7 3.7 3.7 3.8 3.8 3.7 DATE 1-4 1-5 1-6 1-7 1-8 1-9 1-10 1-11 1-12 1-13 1-14 1-15 1-16 1-17 TIME 0130 3.8 3.7 3.6 3.7 3.7 3.5 3.5 3.5 3.5 3.0 3.0 2.7 3.0 3.0 0300 3.4 3.5 3.5 3.0 2.9 0430 3.7 3.4 3.4 3.4 3.1 2.8 3.0 0600 3.8 3.6 3.6 3.7 3.3 3.4 3.0 2.9 0730 3.7 3.5 3.5 3.6 3.3 2.9 0900 3.5 3.5 3.3 2.7 1030 3.6 3.3 3.2 3.1 2.8 1200 3.5 3.4 2.9 2.9 1330 3.6 3.6 2.8 3.0 2.8 1500 3.5 3.7 3.1 2.7 1630 3.6 3.6 1800 3.7 3.7 2,7

3.2

3.1

3.4 3.1 2.9 2.8 3.0 2.9 2.9

2.8

3.1 2.8

3.0 2.9

1930

2100 3.7

2230 3.6

2400 3.6 3.7 3.8 3.7 3.6 3.5

3.8

DATE	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31
0130 0300	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.7	1.6	1.8	2.0	2.3	2.3
0430 0600 0730 0900 1030			2.9	2.9	2.9		2.9	2.9 2.8 2.8 2.7	2.6 2.6 2.5 2.3 2.0	1.6 1.7 1.8 1.9	1.8 1.9	2.1 2.2 2.3		2.2
1200 1330 1500 1630 1800 1930 2100	3.0 2.9		2.8 2.9	2.8 2.9	2.8		2.8 2.9	2.7	1.9 1.9 2.0 2.2 2.0 1.9 1.8	2.0 2.0 1.9 1.9	1.9		2.3 2.2 2.2 2.3	2.1 2.2 2.2 2.3
2230 2400	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.8	1.6 1.6	1.8	2.0	2.3	2.3	2.3
DATE	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14
0130 0300	2.3	1.9	1.8	1.6	2.1	2.0	2.0	2.1	1.9	1.8	1.8	1.9	2.0	2.0 1.9
0430 0600 0730 0900 1030 1200	2.2 2.2 2.1 2.0 1.9		1.8 1.7 1.7 1.6	1.6	2.1		2.0 1.9	2.1	1.9					
1330 1500 1630 1800 1930	1.8 1.9			1.7 1.8 1.9			1.9	2.0				1.9 2.0		1.9 2.0
2100 2230 2400	1.9	1.9 1.8	1.6 1.5	1.9 2.0 2.1	2.0	2.0	2.0 2.1 2.1	1.9	1.8	1.8	1.8 1.9 1.9	2.0	2.0	2.0
DATE	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28
TIME 0130 0300	2.0	1.9	1.9	1.8	1.9	1.8	1.7	1.6	1.7	1.7	1.7	1.7	1.7	1.7 1.6
0430 0600 0730 0900 1030					1.9 1.8	1.8 1.7	1.7 1.6						1.7 1.6	1.0
1200 1330 1500 1630 1800 1930			1.9	1.8 1.9				1.6					1.6 1.7	
2100 2230	2.0 1.9		1.8					1.7						
2400	1.9	1.9	1.8	1.9	1.8	1.7	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.6

LAKE MICHIGAN, STATION 20, 10 m continued.

			•		•									
DATE	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13
TIME 0130 0300 0430 0600 0730	1.7	1.7	1.7	1.7	1.6	1.6	1.3 1.4 1.4 1.3	1,5	1.5	1.7 1.6	1.3 1.3 1.4	1.5 1.4	1.6 1.5 1.4	1.6 1.6 1.5
0900 1030 1200 1330 1500 1630 1800 1930 2100 2230				1.6		1.6 1.5 1.4 1.4 1.3	1.2 1.3 1.4 1.4		1.5 1.6 1.6 1.7	1.6 1.7 1.5 1.2 1.2	1.4 1.5	1.4 1.5 1.6	1.4 1.5 1.6 1.7	1.5 1.6
2400	1.7	1.7	1.7	1.6	1.6	1.3	1.5	1.5	1.7	1.3	1.5	1.6	1.6	1.6
DATE	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27
TIME 0130 0300	1.6	1.6	1.4	1.5	1,4	1.4	1.4	1.4	1.1	1.3	1.6	1.7	1.7	1.7
0430 0600 0730 0900 1030	1.5	1.5 1.5 1.4	1.4 1.3	1.4 1.4 1.3	1.4	1.4	1.4	1.3	1.1 1.2	1.3 1.4 1.4				1.7 1.6
1200 1330 1500 1630	1.5		1.4	1.3	1.3 1.4	1.3 1.4	1.3 1.4	1.2	1.2	1.5	1.6 1.7			1.6 1.7
1800 1930 2100 2230	1.6		1.4 1.5					1.2	1.2 1.3	1.5 1.6				
2400	1.6	1.4	1.5	1.4	1.4	1.4	1.4	1.1	1.3	1.6	1.7	1.7	1.7	1.7
DATE	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8	4-9	4-10
0130 0300 0430 0600 0730	1.7	1.7	1,7	1.7	1.7	1.7	1.7	1.7 1.7 1.6	1.6 1.6 1.5	1.7 1.7 1.6	1.7 1.7 1.6	1.7 1.6 1.5 1.5	1.4	1.4
0900 1030 1200								1.6 1.5			1.6			1.4 1.5
1330 1500 1630								1.5 1.6	1.5 1.6	1.6 1.7				
1800 1930 2100 2230									1.6 1.7				1.4 1.5 1.5	
2400	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.7	1.7	1.7	1.4	1.4	1.5

LAKE MICHIGAN, STATION 20, 10 m continued.

DATE	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20	4-21	4-22	4-23	4-24
TIME														
0130	1.5	1.7	1.5	1.7	1.6									
0300		1.7		1.7										
0430		1.6		1.6										
0600			1.5	1.5										
0730			1.6											
0900														
1030														
1200	1.5		1.6											
1330	1.6	1.6	1.7											
1500		1.5		1.5										
1630				1.6										
1800	1.6				1.6									
1930	1.7				End o	£								
2100					recor									
2230					recor	a								
2400	1.7	1.5	1.7	1.6										

LAKE MICHIGAN - STATION 20. Depth 15 m. Start 7 December 1963, 9930 CST; 15 April 1964, 1830 CST. Instrument serial no. 300, film record 20,114. Initial cal. 0°C; final cal. 0.3°C.

Instrument serial no. 300, film record 20,114. Initial cal. 0°C; final cal. 0.3°C.

IE 12-7 12-8 12-9 12-10 12-11 12-12 12-13 12-14 12-15 12-16 12-17 12-18 12-19 12-20

ME

30 8.3 8.4 8.0 8.0 8.7 8.4 8.1 7.5 7.6 7.0 6.9 6.3 6.1

TI	.ME														
01	.30		8.3	8.4	8.0	8.0	8,7	8.4	8.1	7.5	7.6	7.0	6.9	6.3	6.1
03	300									7.6	7.5		6.8		
04	30		8.3						8.1	7.5			6.7		
06	00		8.4						8.0						
07	30													6.3	
09	00			8.4					8.0				6.7	6.2	
10	30	8.0	8.4	8.3			8.7	8.4	7.9		7.5		6.6		
	00!	8.2	8.5				8.6	8.3			7.4		6.6		
	330	8.3						8.3			7.4		6.5		
	00	8.3		8.3	8.0			8.2		7.5	7.3		6.4		
	30	8.4		8.2	8.1	8.0			7.9	7.6	7.3		6.4		6.1
	300	8.4		8.2	8.1	8.1			7.8	7.7	7.2		6.3	6.2	6.0
	30	8.5	8.5	8.1	8.0	8.3			7.8	7.7	7.1			6.1	
	.00		8.4			8.4		8.2	7.7	7.8	7.1				
	30	8.5				8.5	8.6	8.1	7.6	7.9	7.0	7.0			
24	100	8.4	8.4	8.1	8.0	8.6	8.5	8.1	7.5	7.7	7.0	6.9	6.3	6.1	6.0

DATE	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3
TIME 0130 0300	6.0	5.8	5.8	5.7 5.7	5.4	5.3	5.5	5.5	5.3 5.2	5.1 5.1	5.0	4.9	4.9	4.8
0430 0600 0730 0900	6.0 5.9 5.8 5.7			5.6		5.3 5.4		5.5 5.4		5.0			4.9 4.8	
1030 1200	5.7	5.8				J. 4							4.0	
1330 1500 1630		5.7 5.8	5.8 5.7	5.6 5.5							5.0			
1800 1930 2100	5.7 5.8 5.7					5.4 5.5		5.4 5.3	5.2 5.1		4.9			
2230 2400	5.8 5.8	5.8	5.7	5.5 5.4	5.4 5.3	5.5	5.5	5.3	5.1	5.0	4.9	4.9	4.8	4.8
DATE	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17
0130 0300 0430 0600	4.8	4.8 4.8 4.7	4.7 4.8	4.8	4.8	4.8	4.7	4.6	4.6	4.0 4.2 4.1 4.1	4.1 4.1 4.2 4.3	4.0	4.2	4.0
0730 0900 0900							4.7	4.6 4.5		4.0 4.1				
1200 1330 1500 1630 1800						4.8 4.7	4.6		4.6 4.5		4.3 4.2 4.0	4.0 4.1 4.1 4.2 4.3	4.2 4.1	
1930 2100 2230								4.5	4.5				4.1	4.0 4.1
2400 DATE	4.8 1 - 18	4.7 1-19	4.8 1-20	4.8 1-21	4.8 1-22	4.7 1-23	4.6 1-24	4.6 1-25	4.2 1-26	4.1 1-27	4.0 1-28	4.3 1-29	4.0 1-30	4.1 1-31
TIME 0130 0300 0430 0600	4.1	4.0	4.0	4.0	3,9	3.9	4.0	3.9	3.9 3.9 3.8 3.7	2.5 2.5 2.6 2.7	2.8	3.4	3.0	3.2 3.1 3.0 2.8
0730 0900 1030 1200	4.1 4.0				3.9 4.0				3.6 3.5 3.3 2.9	2.8 2.9 3.0	2.8	3.4 3.3	3.0	2.0
1330 1500 1630 1800					4.0				2.8 2.8 3.1 3.0	3.0	3.4	3.3 3.4	3.1 3.2	
1930 2100 2230				4.0 3.9	3.9	3.9 4.0	4.0 3.9		2.8 2.7 2.5	2.8		3.4 3.3 3.1		2.8 2.9
2400	4.0	4.0	4.0	3.9	3.9	4.0	3.9	3.9	2.5	2.8	3.4	3.0	3.2	2.9

LAKE MICHIGAN, STATION 20, 15 m continued.

DATE	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14
TIME														
0130	2.9													
0300														
0430	2.9													
0600	Tr													
0730	End o													
0900	recor	ra												
1030														
1200														
1330														
1500														
1630														
1800														
1930														
2100														
2230														
2400														

LAKE MICHIGAN - STATION 20. Depth 22 m. Start 7 December 1963, 0930 CST; end 15 April 1964, 1830 CST.
Instrument serial no. 307, film record 20,115. Initial cal. 0.5°C; final cal. 0.8°C.

DATE	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20
TIME														
0130		8.0	8.0	7.9	7.9	8.1	8.2	8.0	7.0	7.1	6.6	6.3	5.9	5.8
0300				7.8				7.9		7.1		6.2		
0430						8.1	8.2	7.8		7.0	6.6	6.1		
0600						8.2	8.1	7.7			6.5	6.1		
0730						8.3		7.6				6.0		5.8
0900														5.7
1030	7.7													
1200	7.8												5.9	
1330								7.6		7.0			5.8	
1500	7.8		8.0				8.1	7.5	7.0	6.9		6.0		
1630	7.9		7.9		7.9		8.0	7.4	7.1	6.9		5.9		
1800					8.0			7.3		6.8				
1930	7.9				8.1			7.3						
2100	8.0			7.8		8.3		7.2		6.8				
2230				7.9		8.2		7.2		6.7	6.5			
2400	8.0	8.0	7.9	7.9	8.1	8.2	8.0	7.1	7.1	6.6	6.4	5.9	5.8	5.7

DATE	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3
TIME 0130 0300 0430	5.6 5.5 5.4	5.2	5.3	5.2	5.1	5.0	5.0	5.0	5.0 4.9	4.5	4.5	4.5	4.5	4.4
0600 0730 0900 1030 1200 1330	5.4 5.3 5.2		5.3 5.2		5.1 5.0	5.0 5.1			4.9 4.8	4.5 4.4				4.4 4.5
1500 1630 1800 1930 2100		5.2 5.3	5.2 5.3	5.2 5.1		5.1 5.0			4.8 4.7				4.5 4.4	
2230 2400	5.2	5.3	5.3	5.1	5.0	5.0	5.0	5.0	4.6	4.4	4.5	4.5	4.4	4.5
DATE	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17
0130 0300	4.5	4.5	4.4	4.4	4.4	4.3	4.2	4,0	4.0	3.9	3.8	3.5	3.9	3.8
0430 0600 0730 0900 1030 1200 1330 1500					4.4		4.2 4.1			3.9 3.8	3.8 3.7	3.5 3.6 3.7 3.8 3.8 3.9	3.9 3.8	
1630 1800 1930 2100		4.5 4.4			4.3	4.3 4.2			4.0 3.9		3.7 3.6			3,8 3.7
2230 2400	4.5	4.4	4.4	4.4	4.3	4,2	4.1 4.0	4.0	3.9	3.8	3.6 3.5	3.9	3.8	3.7
DATE	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31
0130 0300 0430 0600 0730 0900	3.7	3.7	3.6	3.6	3.5	3.4	3.3	3.4	3.3 3.2 3.1 3.0 2.9 2.7	2.1 2.1 2.3 2.4 2.6	2.4	2.6 2.7 2.8 2.9	2.9	2.9
1030 1200 1330 1500 1630 1800		3.7		3.6 3.5	3.5 3.4			3.4 3.3	2.6 2.6 2.7 2.8 2.7 2.6	2.7 2.6 2.6 2.4	2.4 2.5			2.8 2.9
1930 2100 2230		3.6				3.4			2.4 2.1		2.5			
2400	3.7	3.6	3.6	3.5	3.4	3.3	3.3	3.3	2.1	2.4	2.6	2.9	2.9	2.9

DATE	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14
TIME	0.0	0 5	0 0	0 1	0.7			0.0	0.0					
0130	2.9	2.5	2.2	2.1	2.7	2.7	2.8	2.9	2.8	2.8	2.8	2.9	2.9	2.9
0300 0430	2.9													
0600	2.9	2.5												
0730	2.7	2.4												2.9
0900	2.6	2.4												2.8
1030	2.5													2.0
1200	2.5			2.1										
1330				2.2										
1500				2.3										
1630		2.4	2.2	2.4				2.9						
1800		2.3	2.1	2.4		2.7		2.8						
1930		2.0		2.5		2.8	2.8	2.0			2.8			
2100	2.5			2.6		2.0	2.9				2.9			
2230	2.6	2.3		2.7										
2400	2.5	2.2	2.1	2.7	2.7	2.8	2.9	2.8	2.8	2.8	2.9	2.9	2.9	2.8
DATE	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28
TIME	2-13	2-10	2-17	2-10	2-19	2-20	2-21	2-22	2-25	2-24	2-25	2-20	2-21	2-20
0130 0300	2.8	2.8	2.7	2.6	2.5	2.4	2.4	2.3	2.3	2.4	2.5	2.5	2.5	2.4
0430													2.5	
0600		2.8											2.4	
0730		2.7												
0900				2.6			2.		2.3					
1030				2.5			2.3		2.4					
1200														
1330			2.7		2.5									
1500			2.6		2.4					2.4				
1630										2.5				
1800														2.4
1930														2.3
2100														
2230 2400	2.8	2.7	2,6	2.5	2.4	2.4	2.3	2.3	2.4	2.5	2.5	2.5	2.4	2.3
DATE	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13
0130	2.3	2.3	2.3	2.3	2.3	2.3	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.1
0300			-•-											
0430												2.2		
0600							2.1					2.1		
0730							2.0							
0900														
1030									2.1					
1200							2.0		2.2					
1330							2.1							
1500						2.3				2.2				
1630						2.2				2.1				
1800 1930						Z.I					2.1			
2100											2.2			
2230											2.2			
2400	2.3	2.3	2.3	2.3	2.3	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.1	2.1

DATE	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27
0130 0300	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.2
0430														
0600 0730											2.1			
0900 1030														
1200										2.0 2.1				
1330 1500			2.1											
1630			2.0											
1800 1930														
2100 2230														2.2
2400	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.3
DATE	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8	4-9	4-10
TIME 0130	2.3	2.3	2.3	2,2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.1
0300 0430	2.3									-•-				
0600	2.2													
0730 0900														
1030														
1200 1330				2.2										
1500 1630								2.1						
1800								2.2				2.2		
1930 2100	2.2		2.3									2.1		
2230	2.3	0.0												
2400 DATE	2.3 4-11	2.3 4-12	2,2 4-13	2.1 4-14	2.1 4-15	2.1 4-16	2.1 4-17	2,2 4-18	2.2 4-19	2.2 4-20	2.2 4-21	2.1 4-22	2.1 4-23	2.1 4-24
TIME						4-10	4-1/	4-10	4-12	4-20	4-21	4-22	4-23	4-24
0130 0300	2.2	2.2	2.2	2,2	2.2									
0430 0600														
0730				2.2										
0900 1030				2.1										
1200														
1330 1500			2.1	2.1										
1630 1800			2.2	2.2	2.2									
1930						d ends								
2100 2230					1830									
2400	2.2	2.2	2.2	2.2										

LAKE MICHIGAN - STATION 20. Depth 30 m.
Start 7 December 1963, 0930 CST; end 15 April 1964, 1830 CST.
Instrument serial no. 346, film record 20,116. Initial cal. 0°C; final cal. 0.3°C.

DATE	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20
TIME														
0130		7.7	8.0	7.5	7.5	8.0	7.9	7.6	6.7	6.9	6.4	6.2	5.8	5.6
0300			7.9	7.5				7.5	6.7		6.3	6.1		
0430			7.8	7.4	7.5	0.0		7.4	6.8			6.1		
0600 0730		7.7			7.4	8.0		7.3				6.0	5.8	
0900	7.5	7.8 7.9	7.8		7.4	8.1	7.9	7.2					5.7	
1030	7.5	8.0	7.9	7.4	7.3		7.8			6.9		6.0		
1200	7.6	0.0	7.9	7.5	7.3		7.0			6.8	6.3	5.9 5.9	e 7	
1330	7.0		7.9	1.5			7.8			6.8	6.4		5.7	E (
1500			7.8				7.7			6.7	0.4	5.8 5.8	5.6	5.6 5.5
1630	7.6		7.7		7.3				6.8	6.7		5.7		3.3
1800	7.7		7.7		7.4				7.0	6.6		3.7		
1930	7.6		7.6		7.7				7.1	6.5				
2100	7.8		7.6		7.9	8.1	7.7	7.2	7.1	6.5				
2230	7.8		7.5		8.0	7.9	7.6	7.1	7.0	6.4	6.4			
2400	7.6	8.0	7.5	7.5	8.0	7.9	7.6	7.0	6.9	6.4	6.3	5.7	5.6	5.5
DATE	12-21		12-23					12-28		12-30		1-1	1-2	1-3
TIME				10 00	12 23	12 20	1/	20	12 27	12 30	12-31	1-1	1-2	1-5
0130	5.5	5.3	5.2	5.0	5.0	4.9	5.0	5.0	4.7	4.4	4.3	4.3	4.3	4.3
0300	5.5				4.9				4.7	4.4				
0430	5.4								4.6	4.3				
0600	5.4	5.3			4.9				4.6			4.3		
0730	5.3	5.2			4.8				4.5			4.4		
0900	5.3	5.2												
1030	5.2	5.1	5.2											
1200			5.1									4.4		
1330											*	4.3		
1500								5.0						
1630								4.9						
1800	5.2	5.1			4.8			4.8						
1930	5.3	5.0	5.1		4.9	4.9								
2100		5.1	5.0			5.0		4.8	4.5					
2230		5.2	r 0	- 0	, ,	- 0	. 0	4.7	4.4	, ,	, ,	, ,		
2400	5.3	5.2	5.0	5.0	4.9	5.0	5.0	4.7	4.4	4.3	4.3	4.3	4.3	4.3
DATE	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17
0130	4.3	4.2	4.2	4.2	4.1	4.1	4.0	4.0	3.9	3.7	3.5	3.1	3.5	3.3
0300			-7.2	-7.	7.0-	***	7.0	-1.0	3.,	3.7	3.6	3.1	3.3	3,3
0430				4.2						3.6	3.7			
0600				4.1						3.5	3.,			
0730										3.4		3.1		3.3
0900							a			3.5		3.2		3.4
1030						4.1					3.7	3.3		
1200						4.0					3.4	3.4		
1330											3.3	3.5	3.5	
1500							4.0				3.2	3.5	3.4	
1630							3.9				3.1	3.6		
1800									3.9					
1930								4.0	3.8					
2100	4.3							3.9	3.6					
2230	4.2								3.7			3.6		
2400	4.2	4.2	4.2	4.1	4.1	4.0	3.9	3.9	3.7	3.5	3.1	3.5	3.4	3.4

DATE TIME	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31
0130 0300	3.2	3.1	3.0	3.0	3.0	3.0	2.9	3.0	2.9	1.9	2.0	2.5 2.5	2.7	2.7
0430 0600 0730 0900 1030		3.1 3.0			3.0 2.9		2.9 3.0	3.0	2.8 2.8 2.6 2.3 2.2	1.9 2.0 2.2 2.3 2.4	2.0 2.1 2.1	2.6 2.6 2.7	2.7	2.7
1200 1330	3.2 3.1					3.0 2.9		2.9	2.3	2.3	2.2		2.8	
1500 1630 1800					2.9				2.4 2.4 2.2	2.1	2.2			2.6 2.7
1930 2100 2230					3.0				2.0 1.9		2.3			
2400	3.1	3.0	3.0	3.0	3.0	2.9	3.0	2.9	1.9	2.1	2.4 2.4	2.7	2.7	2.7
DATE	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14
0130 0300 0430	2.7 2.7 2.6	2.1 2.0	2.0	1.9 2.0	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.5	2.5	2.5
0600 0730 0900 1030	2.6 2.5 2.4 2.2	2.0 2.2 2.1 2.1	1.9	2.0 2.1										
1200 1330	2.1	2.2	1.9							2.3 2.4				
1500 1630 1800		2.1 2.3	2.0 2.0 1.9	2.1 2.2				2.4			2.4 2.5			
1930 2100 2230	2.1 2.2 2.3	2.3		2.2 2.3 2.4										2.5 2.4
2400	2.2	2.0	1.9	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.5	2.5	2.5	2.4
DATE	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27.	2-28
0130 0300	2.4	2.4	2.4	2.3	2.3	2.3	2.2	2.1	2.2	2.2	2.2	2.1	2.2	2.1
0430 0600 0730 0900			2.4				2.2					2.1		
1030 1200 1330			2.3											2.1 2.0
1500 1630 1800								2.1					2.2 2.1	
1930 2100 2230						2.3 2.2		2.1			2.2			
2400	2.4	2.4	2.3	2.3	2.3	2 . 2	2.1	2.2	2.2	2 . 2	2.1	2.2	2.1	2.0

DATE	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13
TIME														
0130	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
0300 0430														
0600											1.8			
0730											1.7			
0900														
1030			1.9									1.8		
1200			2.0									1.7		
1330			1.8								1.7			
1500 1630											1.8	1.7		
1800												1.8		
1930							1.8							
2100							1.7							
2230														
2400	1.9	1.9	1.8	1.8	1.8	1.8	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8
DATE	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27
TIME	1 0		1 0	1 0	1 0	1 0	1 0		1.	1.				
0130 0300	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.6 1.5	1.6	1.7	1.7	1.7	1.7
0430									1.5					
0600														
0730					1.8					1.6				
0900					1.7					1.7				
1030							1.8							
1200 1330					1.7 1.8		1.7 1.7	1.7						
1500					1.0		1.8	1.6						
1630									1.5					1.7
1800									1.6					1.8
1930														
2100														
2230 2400	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.6	1.6	1.7	1.7	1.7	1.7	1.8
DATE	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8	4-9	4-10
0130	1.8	2.0	2.0	2.0	2.0	2.0	1.9	1.8	1.7	1.8	1.7	1.7	1.7	1.7
0300									-•.					
0430														
0600										1.8				
0730								1.8		1.7				
0900 1030							1.9	1.7						
1200	1.8						1.8							
1330	1.9						1.0							
1500														
1630						2.0								
1800	1.0					1.9			1.7					1 7
1930 2100	1.9 2.0								1.8					1.7 1.8
2230	2.0													1.0
2400	2.0	2.0	2.0	2.0	2.0	1.9	1.8	1.7	1.8	1.7	1.7	1.7	1.7	1.8

LAKE MICHIGAN, STATION 20, 30 m continued.

DATE	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20	4-21	4-22	4-23	4-24
TIME														
0130	1.8	1.9	1.9	1.9	1.9									
0300				1.8										
0430														
0600					1.9									
0730					1.8									
0900		1.9												
1030		1.8												
1200														
1330				1.8										
1500				1.9										
1630	1.8	1.8												
1800	1.9	1.9			1.8									
1930					End o	£								
2100					recor									
2230					recor	u								
2400	1.9	1.9	1.9	1.9										

LAKE MICHIGAN - STATION 20. Depth 90 m. Start 7 December 1963, 0930 CST; end 15 April 1964, 1830 CST. Instrument serial no. 271, film record 20,117. Initial cal. 0.5°C; final cal. 0.7°C.

DATE	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20
TIME														
0130		4.0	4.0	3.6	3.6	3.5	3.7	4.1	3.7	3.8	3.5	3.5	3.5	3.5
0300						3.6	3.9	4.0	3.7	3.9				
0430						3.7	4.5		3.8					
0600		4.0			3.6	3.8	6.5		3.8	3.9				
0730		3.9			3.5	3.7	7.0		3.9	3.8				
0900		3.9					7.2	4.0	3.9	3.7				3.5
1030	4.1	4.0						3.9	3.8	3.6				3.7
1200	4.1						7.2	3.8	3.7					
1330	4.0						6.8	3.7	3.6	3.6				
1500		4.0	4.0				5.7			3.5				3.7
1630		3.9	3.9			3.7	4.8							3.8
1800						3.9	4.8							
1930			3.9				4.5							3.8
2100			3.7			3.9	4.2		3.6					3.9
2230			3.6			3.8	4.1		3.7					4.0
2400	4.0	3.9	3.6	3.6	3.5	3.7	4.1	3.7	3.8	3.5	3.5	3.5	3.5	4.1

DATE	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3
0130	3.9	4.7	4.6	4.5	4.4	4.3	4.5	4.4	4.1	4.0	3.9	4.0	3.9	3.9
0300	3.8	4.7	4.0	4.5	4.4	4.5	4.5	4.3	4.1	4.0	3.9	4.0	3.9	3.9
0430	3.9	4.6			4.3					4.0				
0600	4.0								4.1	3.9				
0730	4.1	4.6							4.0					
0900	4.3	4.5	4.6									4.0		
1030	4.5		4.5									3.9		
1200								4.3						
1330								4.2	4.0					
1500						4.3			4.1					
1630	, -					4.4								
1800	4.5													
1930 2100	4.6 4.7					4.4			4.1		2.0			
2230	4.7	4.5				4.5			4.0		3.9 4.0			
2400	4.7	4.6	4.5	4.5	4.3	4.5	4.5	4.2	4.0	3.9	4.0	3.9	3.9	3.9
DATE	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17
0130	3.9	3.8	3.9	3.9	3.8	3.8	3.7	3.6	3.6	3.4	3.3	3.0	3.1	3.0
0300									3.6					
0430									3.5	3.4				
0600										3.3				
0730												3.0		3.0
0900 1030						3.8					3.3	3.1 3.3		3.1
1200						3.7					3.2	3.3		
1330						3.7	3.7				3.2			
1500							3.6				3.1		3.1	
1630				3.9							3.1		3.0	
1800				3.8					3.5		3.0	3.3		
1930	3.9								3.4			3.2		3.1
2100	3.8							3.6						3.0
2230								3.5				3.2		
2400	3.8	3.8	3.9	3.8	3.8	3.7	3.6	3.5	3.4	3.8	3.8	3.1	3.0	3.0
DATE	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31
0130	2.9	2.9	2.8	2.8	2.8	2.7	2.7	2.7	2.5	1.8	1.8	2.3	2.3	2.3
0300			2.0	2.0	0		-•,		2.5	1.9	1.9	2.5	2.5	5
0430									2.4	2.0	2.0	2.3		
0600									2.4		2.1	2.2		
0730									2.3		2.2	2.3		
0900									2.1		2.3			
1030									2.0	0.0				
1200									2.0	2.0				
1330 1500									2.1	1.9 1.8				
1630		2.9							2.1	1.0				
1800		2.8							2.0					2.3
1930					2.8				1.7					2.2
2100					2.7				1.5					2.2
2230								2.7	1.6					2.3
2400	2.9	2.8	2.8	2.8	2.7	2.7	2.7	2.8	1.8	1.8	2.3	2.3	2.3	2.3

DATE	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14
TIME 0130	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.0	1.9	2.1	2.1	2.0
0300 0430					2.2		2.2			1.9	1.9			
0600 0730	2.3				2.2		2.1				2.0			
0900	2.2										~			
1030 1200	2.2						2.2							
1330	2.3									1.0			0.1	
1500 1630										1.9 2.0			2.1	
1800 1930				2.3					2.1					
2100				2.2					2.0					
2230 2400	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.1	2.1	2.0	2.0
DATE	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28
TIME 0130	1.9	1.9	1.9	1.9	1.9	1.8	1.7	1.7	1.8	1.7	1.7	1.7	1.7	1.7
0300 0430														
0600									1.8					
0730 0900									1.7					
1030														
1200 1330														
1500														
1630 1800					1.9	1.8								
1930 2100					1.8	1.7		1.7						
2230								1.8						
2400	1.9	1.9	1.9	1.9	1.8	1.7	1.7	1.8	1.7	1.7	1.7	1.7	1.7	1.7
DATE TIME	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13
0130 0300	1.6	1.6	1.6	1.5	1.5	1.5	1.4 1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
0430							1.3							
0600 0730		1.6												
0900		1.5												
1030 1200							1.3							
1330 1500							1.4							
1630			1.6			1.5								
1800 1930		1.5 1.6	1.5			1.4								
2100														
2230 2400	1.6	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4

LAKE MICHIGAN, STATION 20, 90 m continued.

DAME	2 14	2 15	2 16	2 17	2 10	2 10	2 20	2 21	2 22	2 22	2 24	2.25	2.00	2 07
DATE	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27
0130	1.4	1.4	1.4	1.4	1.3	1.4	1.4	1.4	1.3	1.3	1.4	1.4	1.4	1.4
0300 0430														
0600					1.3									
0730					1.4									
0900														
1030														
1200														
1330 1500								1.4		1.3 1.4				
1630								1.3		1.4				
1800								2.5						
1930				1.4										1.4
2100				1.3										1.5
2230 2400	1 4	1.4	1.4	1.3	1 4	1 /	1 6	1 0	1 2	1 /	1 /	1 /		1 5
	1.4				1.4	1.4	1.4	1.3	1.3	1.4	1.4	1.4	1.4	1.5
DATE	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8	4-9	4-10
0130	1.5	1.5	1.5	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.5
0300	1.5													2,5
0430	1.4													
0600				1.6			1.5							
0730 0900				1.5			1.4							
1030														
1200														
1330														
1500	1.4													
1630	1.5													
1800 1930			1.5 1.6										1.4 1.5	
2100			1.0										1.5	1.5
2230														1.6
2400	1.5	1.5	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.6
DATE	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20	4-21	4-22	4-23	4-24
TIME 0130	1.6													
0300	1.0													
0430														
0600														
0730														
0900														
1030 1200														
1330	1.6													
1500	Data													
1630	ends													
1800														
1930														
2100 2230														
2400														

LAKE MICHIGAN - STATION 27. Depth 15 m. Start 4 December 1963, 0845 CST; end 23 April 1964, 1030 CST. Instrument serial no. 310, film record 20,126. Initial cal. 0.5°C; final cal. 0.8°C.

DATE	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17
TIME 0130		5.1	4.3	4.7	4.8	5.0	4.7	3.8	3.2	3.4	3.5	3.2	2.3	2.3
0300			4.3 4.4					3.5	3.1	3.4	3.4		2.4	2.3
0430 0600			4.4					3.3	3.1	3.3			2.4	2.2
0730		5.1	4.6		4.8		4.7		3.3	3.3			2.3	2.1
0900	5.0	5.0	4.7	4.7	4.7		4.6		3.4	3.4		3.2	2.2	2.1
1030		4.8	4.7	4.8	4.7		4.2		3.4	3.4		2.8	2.2	2.2
1200 1330		4.5 4.3	4.8		4.8 4.8		3.3 3.3		3.5	3.5		2.3	2.1	
1500		4.5			4.9	5.0	3.4					2.1	2.1	
1630				4.8	4.9	4.9	3.6		3.5		3.4	1.9	2.2	
1800	5.0		4.8	4.7	5.0	4.8	3.7		3.4		3.2	1.8		
1930	5.1		4.7	4.6		4.7	3.8					1.9		2.2
2100 2230			4.7 4.6	4.7		4.6 4.7	4.0 3.9	3.3				1.9 2.0		2.2
2400	5.1	4.3	4.6	4.7	5.0	4.7	3.9	3,2	3.4	3.5	3.2	2.2	2.2	2.0
DATE			12-20							12-27	12-28	12-29	12-30	12-31
TIME														
0130 0300	2.0	2.2	0.2	0.3	1.2	0.4	0.3	1.2	1.2 1.1	1.2	1.1	0.7	0.2	0.2
0430			0.2	0.4		0.3	0.5		1.1		0.9	0.5		0.2
0600			0.3	0.4		0.5	1.0				0.9	0.4		0.1
0730	2.0		0.4	0.5			1.1				1.0			
0900	1.9	2.2		0.5	1.2		1.2				1.1			
1030 1200	1.9 2.0	2.0 1.6		0.6	1.1				1.1		$\frac{1.1}{1.2}$			
1330	2.0	1.4	0.4	0.9	0.7				1.2		1.2			
1500	2.1	1.3	0.3	1.0	0.5							0.4		
1630		1.2		1.1								0.3		
1800	2.1	1.0		1.2							1.2	0.3		
1930 2100	2.2	0.8									1.1	0.2		
2230		0.3									1.1	0.2		0.1
2400	2.2	0.2	0.3	1.2	5 ، 0	0.3	1.2	1.2	1.2	1.2	1.0	0.2	0.2	0.2
DATE	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14
TIME 0130	0.2	1.0	1.4	1.8	1.7	1.7	1.7	1.6	1.5	1.7	1.4	1.2	1.2	1.2
0300	0.2	1.0	1.5	1.0	1.,/	1.7	1.7	1.0	1.0	1.7	1.4	1.3	1.2	1.1
0430		1.1	1.5				1.6			1.5		2.0		
0600		1.2	1.7							1.4		1.3		
0730		1.4	1.8						1.5	1.2	1.4	1.2		
0900 1030	0.2	1.5	1.9	1.8					1.6	1.2	1.3			1.1
1200	0.2			1.,						1.3	1.3			1.0
1330	0.4		1.9						1.6	1.3	1.2			
1500		1.5	1.8						1.7	1.4	1.2			
1630 1800		1.4							1.7 1.8		$\frac{1.1}{1.1}$			
1930	0.4								1.0		1.0			
2100	0.5							1.6			1.1			
2230	0.6							1.5		_ :	1.2			1.0
2400	0.9	1.4	1.8	1.7	1.7	1.7	1.6	1.5	1.8	1.4	1.2	1.2	1.2	0.9

DATE	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28
0130 0300	0.9	1.0 1.1	1.2	1.1	1.1	1.1	1.2	1.1	1.2	1.2	1.2	1.0	1.0	0.8
0430 0600 0730 0900 1030		1.1	1.2 1.1		1.1			1.1 1.2					1.0 0.9 1.0	0.7 0.6 0.5 0.3
1200 1330 1500 1630		1.1 1.2			1.2				1.2 1.1		1.2 1.1			
1800 1930 2100 2230	0.9 1.0		1.1 1.0 1.1		1.2	1.1 1.2	1.2		1.1 1.2		1.1		1.0	0.3 0.4
2400	1.0	1.2	1.1	1.1	1.1	1.2	1.1	1.2	1.2	1.2	1.0	1.0	0.9	0.4
DATE	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11
0130 0300	0.4	0.4	0.4	0.7	0.7	0.7	0.8	0.4	0.5	0.5	0.4	0.3	0.2	0.3
0430 0600 0730		0.4 0.5					0.8 0.5 0.6				0.4		0.3 0.3 0.2	
0900 1030 1200 1330 1500		0.5 0.4	0.4 0.5 0.6			0.7	0.6 0.5 0.4	0.4	0.5	0.5				
1630 1800 1930							0.5			0.4		0.3	0.2 0.3	
2100 2230 2400	0.4	0.4	0.6 0.7 0.7	0.7	0.7	0.8	0.4	0.5	0.6	0.5 0.5 0.4	0.3	0.2	0.3	0.3
DATE	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25
TIME 0130 0300 0430	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.5	0.5 0.4	0.6	0.8	0.8	0.6 0.6 0.5	0.5
0600 0730 0900		0.4 0.3				0.4 0.5	0.4		0.4 0.5 0.6				0.5	
1030 1200 1330 1500			0.3 0.4	0.4	0.4				0.6 0.7 0.6	0.6 0.7		0.8	0.5	
1630 1800 1930 2100	0.3 0.4			0.5	0.3 0.4 0.5	0.5				0.7 0.8		0.7	0.5	
2230 2400	0.4	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.8	0.8	0.7 0.6	0.5	0.5

DATE	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10
TIME 0130 0300	0.5	0.1	0.1	0.2	0.3	0.3	0.7	0.7	0.8	1.0	1.0	0.9	0.7	0.6
0430 0600 0730	0.5 0.4					0.4 0.5 0.5			0.8	1.0				0.6
0900 1030 1200	0.4					0.6 0.5 0.6			1.0	0.9 1.0		0.9 0.8 0.8	0,7	0.7
1330 1500 1630	0.2 0.2 0.1		0.1									0.7 0.6		0.7
1800 1930 2100	0.0 0.0 0.1	0.1				0.6 0.7		0.7			1.0	0.6 0.7	0.7	0.9 0.9 1.0
2230 2400	0.1	0.2	0.2	0.2	0.3	0.7	0.7	0.8 0.8	1.0	1.0	0.9 0.9	0.7	0.6 0.7	1.0
DATE	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24
TIME 0130 0300	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.9	0.8	0.8
0430 0600 0730				1.1 1.0			1.0							0.8
0900 1030 1200		1.0							1.1 1.2 1.1		1.1 1.0			
1330 1500 1630		1.1										0.9		0.9 1.0
1800 1930 2100 2230				1.0 1.1			1.0 1.1	1.1	1.1 1.2 1.1					
2400	1.0	1.1	1.1	1.1	1.1	1.1	1.1	$\frac{1.1}{1.1}$	1.1	1.1	1.0	0.8	0.8	1.0
DATE	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7
0130 0300 0430 0600	1.0	1.0	1.1	1.0	1.0	1.0 0.9	0.9	0.8	0.8	0.7	0.8	0.8 0.8 0.7 0.8	0.8	0.9
0730 0900 1030 1200									0.8 0.7			0.0	0.8 0.9	0.9 1.0
1330 1500 1630 1800 1930		1.0	1.1				0.9 0.8			0.7 0.8				
2100 2230 2400	1.0	1.1	1.0	1.0	1.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	1.0
2400	1.0	1.1	1.0	1.0	1.0	0,9	0.8	8,0	0.7	0.8	0.8	0.8	0.9	1.0

LAKE MICHIGAN, STATION 27, 15 m continued.

DATE	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20	4-21
TIME 0130	1.0	1.0	1.0	1.0	0.9	0.9	1.2	1.2	1.2	1.4	1.7	1.8	2.0	2.1
0300	1.0	1.0	1.0	1.0	0.,	0.,		1.1	1.2	1.5	1.,	1.0	2.0	2.1
0430										1.5		1.8		
0600										1.6		2.0		
0730				1.0	0.9	0.9								
0900				0.9	1.0	0.8			1.2					
1030								1.1	1.3	1.6			2.0	
1200						0.8		1.2		1.7			2.1	2.1
1330			1.0			1.0					1.7			2.0
1500			1.1		1.0				1.3		1.8			
1630					0.9				1.4					
1800						1.0								
1930			1.1			1.1								
2100			1.0			1.2								
2230														
2400	1.0	1.0	1.0	0.9	0.9	1.2	1.2	1.2	1.4	1.7	1.8	2.0	2.1	2.0
DATE	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4	5-5
TIME														
0130	2.0	2.1												
0300														
0430														
0600														
0730														
0900														
1030		2.1												
1200		End o	f											
1330		recor	d											
1500 1630														
1800														
1930	2.0													
2100	2.1													
2230	4 . L													

LAKE MICHIGAN - STATION 28. Depth 15 m.
Start 4 December 1963, 1144 CST; end 23 April 1964, 1430 CST.
Instrument serial no. 363, film record 20,131. Initial cal. 0°C; final cal. 0°C.

DATE	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17
0130		5.7	5.7	5.7	5.7	5.6	5.6	5.3	5.1	5.1	5.1	5.0	4.9	4.8
0300 0430											5.1			
0600 0730		5.7 5.8			5.7	5.6					5.0			
0900 1030					5.6	5.7	5.6 5.5					5.0 4.9		4.8
1200 1330	5.7					5.7		5.3						4.7
1500						5.8		5.2						
1630 1800		5.8 5.7				5.8 5.7	5.5 5.4						4.9	
1930 2100								5.2					4.8	
2230	- 7	e 7	E 7	E 7	5.6	5 7	5.4 5.3	5.1	5.1	5,1	5.0	4.9	4.8	4.7
2400 DATE	5.7 12-18	5,7 12-19	5.7 12-20	5.7 12-21	12-22	5,7 12-23	12-24		12-26	12-27	12-28	12-29	12-30	12-31
TIME 0130	4.7	4.1	4.1	4.0	4.0	4.0	4.0	4.0	4.0	3.9	3.8	3.8	3.4	3.3
0300	4.6	4.1	4.1	4.0	4.0	4.0	4.0	4.0	4.0	3.7	3.0	3.7	3.4	3,3
0430 0600	4.5 4.3											3.7		
0730 0900	4.1		4.1 4.0									3.6		3.3 3.2
1030 1200									4.0					
1330									3.9			3.6		
1500 1630		4.1								3.9		3.5	3.4 3.3	
1800 1930		4.0								3.8				
2100 2230												3.5 3.4		
2400	4.1	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.9	3.8	3.8	3.4	3.3	3.2
DATE	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14
0130	3.2	3.1	3.2	3.2	3.2	3.2	3.2	3.1	3.1	3.1	3.0	3.0	3.0	2.9
0300 0430														2.8
0600 0730		3.1 3.2												
0900 1030							3.2 3.1			3.1				
1200 1330														
1500														2.8
1630 1800														2.9 3.0
1930 2100													3.0	3.0 2.9
2230 2400	3.2	3, 2	3.2	3.2	3.2	3.2	3.1	3.1	3.1	3.0	3.0	3.0	2.9	2.9
2 700	3.2	3,2	3,2	3.2	3.2	3+2	5.1	3,1	3.1	3.0	5.0	5.0	2.,	2.0

LAKE MICHIGAN, STATION 28, 15 m continued.

DATE	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28
TIME 0130	2.8	2.5	2.4	2.8	2.8	2.9	2.9	2.9	2.9	2.9	2.7	2.8	2.7	2.7
0300	2.7		-•								2.,	2.0	2.7	2.7
0430														
0600		2.5									2.7			
0730		2.4									2.8			
0900														
1030 1200	2.7		2.4											
1330	2.5		2.5									2.8		
1500	2.5		2.7		2.8							2.7		
1630			2.8		2.9									
1800			2,0											
1930														
2100										2.9				
2230										2.8				
2400	2.5	2.4	2.8	2.8	2.9	2.9	2.9	2.9	2.9	2.7	2.8	2.7	2.7	2.7
DATE	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11
TIME														
0130	2.7	2.7	2.7	2.8	2.8	2.8	2.7	2.4	2.4	2.4	2.4	2.4		2.3
0300 0430														
0600							2.7		2.4					
0730			2.7				2.0		2.3	2.4				
0900			2.8			2.8			2.3	2.3			o)	
1030						2.7	2.6			2.0			979	
1200							2.5						Unreadable	
1330													ea	
1500													Juz	
1630									2.3				_	
1800									2.4					2.3
1930							2.5							2.4
2100 2230							2.4			2.3				
2400	2.7	2.7	2.8	2.8	2.8	2.7	2,4	2.4	2.4	2.4	2 /	0 /		
2400	4.1	4.7	2.0	4.0	4.0	2./	2.4	2.4	2.4	2.4	2.4	2.4		2.4 Data
														ends

LAKE MICHIGAN - STATION 28. Depth 22 m. Start 4 December 1963, 1144 CST; end 23 April 1964, 1430 CST. Instrument serial no. 107, film record 20,132. Initial cal. 0.5°C; final cal. 0.0°C.

DATE TIME	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17
0130 0300		5.5	5,5	5.5	5.5	5.4	5.3	5.1	4.9	4.8	4.7	4.6	4.5	4.4
0430								5.1	4.8					
0600 0730								5.0			, -	4.6 4.5		
0900											4.7 4.6	4.5		
1030					5.5									
1200 1330	5.5				5.4	5.4	5.3 5.2			4.8 4.7				
1500				5.5		5.5	3,2			4.7				
1630				5.4									4.5	
1800 1930				5.5		5.5		5.0 4.9					4.4	
2100						5,4	5.2	"""						
2230 2400	5.5		5.5	5.5	5.4	5.4	5.1 5.1	4.9	4.8	4.7	4.6	4.5	4.4	4.4
DATE		5,5 12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31
TIME														
0130 0300	4.4 4.3	3,9	3.8	3.6	3.7	3,6	3.6	3.7	3.6	3.6	3.6	3.5	3.4	3.1
0430	4.2						3.6							
0600	4.1	3.9					3.5							
0730 0900	3.9	3.8	3.8					3.7 3.6						
1030		3.7	3.7					3.0						
1200														
1500					3.7						3.6			
1630					3.6						3.5			
1800 1930		3.7	3.7 3.6									3.5	3.4 3.3	
2100		3.8	3,0									3.4	3.2	
2230				0.6		0.6	0.5	0.6					3.2	
2400 DATE	3.9 1-1	3.8 1-2	3.6 1-3	3.6 1-4	3.6 1-5	3.6 1-6	3.5 1-7	3.6 1-8	3.6 1-9	3.6 1-10	3.5 1-11	3.4 1-12	3.1 1-13	3.1 1-14
TIME														
0130 0300	3.1	3.0 3.0	3.4	3.5	3.5	3.5	3.4	3,3	3.3	3.3	3.1	2.9	2.8	2.7 2.6
0430		3.1									3.1		2.8	2.0
0600	3.1										3.0	2.9	2.7	
0730	3.0		3.4 3.5							3.3		2.8		
1030			3.3							3.2				
1200		3.1												
1330 1500		3.2					3.4				3.0 2.9			
1630		3.3					3.3							2.6
1800 1930		3.3 3.4				3.5 3.4				3.2				2.7
2100		5. /				3. /				3.1				2.7
2230 2400	3.0	3.4	3.5	3.5	3.5	3.4	3.3	3.3	3.3	3.1	2.9	2.8	2.7	2.6 2.6
2400	3.0	3.4	ر , ر	ر , د	ار پر	3.4	ر و د	3.3	3.3	3 . I	2.9	2.0	261	2.0

			1		•									
DATE	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28
TIME														
0130	2.7	2.5	2.5	2.7	2.7	2.7	2.7	2.7	2.8	2.8	2.7	2.7	2.7	2.7
0300														
0430		2.5								2.8				
0600 0730	2 7	2.6								2.8				
0900	2.7		2.5							201				
1030	2.0	2.6	2.6											
1200		2.5	2.6											
1330		2.5	2.7											
1500	2.6			2.7										
1630	2.5			2.6										
1800				2.6				2.7						
1930				2.7				2.8						
2100														
2230														
2400	2.5	2.5	2.7	2.7	2.7	2.7	2.7	2.8	2.8	2.7	2.7	2.7	2.7	2.7
DATE	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11
TIME	0.7	0.7	0.7	2.7	2.7	2 7	2.6	2.4	2.5	2.5	2.5	2.4	0 /	2.4
0130 0300	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.4	2.5	2.5	2.5	2.4	2.4	2.4
0430							2.6							
0600							2.5							
0730														
0900						2.7								
1030						2.6								
1200														
1330														
1500														
1630											2.5			
1800											2.4			
1930														
2100 2230							2.5							
2400	2.7	2.7	2.7	2.7	2.7	2.6	2.4	2.4	2.5	2.5	2.4	2.4	2.4	2.4
				2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25
DATE	2-12	2-13	2-14	2-13	2-10	2-1/	2-10	2-19	2-20	2-21	2-22	2-23	2-24	2-23
0130	2.5	2.6	2.5	2.4	2.5	2.5	2.6	2.5	2.5	2.4	2.2	2.1	2.1	2.1
0300														
0430											2.2			
0600	2.5										2.3		2.1	
0730	2.6				2.5		2.6			2.4			2.0	
0900					2.6		2.5			2.3				
1030					2.6									
1200 1330					2.5									
1500													2.0	
1630											2.3		2.1	
1800									2.5	2.3	2.2			
1930			2.5	2.4					2.4	2.2				
2100		2.6	2.4	2.5										
2230		2.5	۰.	0.5	0.5	0.5	0.5	0.5	2 /	2.2	2.2	0.1	2 1	2 1
2400	2.6	2.5	2.4	2.5	2.5	2.5	2.5	2.5	2.4	2.2	2.2	2.1	2.1	2.1

											2.2			
DATE	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10
TIME														
0130	2.2	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1
0300														
0430														
0600						2.1						2.1		
0730						2.0			2.0			2.0		
0900									2.1					
1030				2.2										
1200				2.3									2.0	
1330													2.1	
1500											2.0			
1630								2.0			2.1			
1800				2.3	2.2			2.1						
1930				2.2	2.1									
2100									2.1					
2230									2.0					
2400	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.1	2.0	2.0	2.1	2.0	2.1	2.1
DATE TIME	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24
0130	2.1	2.0	1.8	1.9	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.1	2.0	2.0
0300	2.1	2.0	1.0	1.9	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.1	2.0	2.0
0430		1.9										2.0		
0600	2.1	1.9										2.0		
0730	2.0													
	2.0		1 0			0 0			0.1					
0900			1.8			2.0			2.1					
1030			1.9			2.1			2.2		2.2			
1200											2.1			
1330														
1500					2.0									
1630					2.1									
1800														2.0
1930				1.9										2.1
2100				2.0										
2230														
2400	2.0	1.9	1.9	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.0	2.0	2.1
DATE	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7
TIME														
0130	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.1	2.0
0300														
0430				2.1										
0600				2.0								2.2		
0730										2.1		2.1		
0900										2.2			2.1	
1030													2.0	
1200														
1330														
1500		2.0							2.0					
1630		2.1							2.1					
1800														
1930														
2100														
2230														
2400	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.1	2.0	2.0

LAKE MICHIGAN, STATION 28, 22 m continued.

DATE	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20	4-21
TIME														
0130	2.0	2.1	2.2	2.2	2.1									
0300		2.1												
0430		2.2												
0600	2.0													
0730	2.1			2.2										
0900				2.1										
1030														
1200														
1330														
1500														
1630					2.1									
1800					Data									
1930					ends									
2100					enus									
2230														
2400	2.1	2.2	2.2	2.1										

LAKE MICHIGAN - STATION 28. Depth 30 m. Start 4 December 1963, 1144 CST; end 23 April 1964, 1430 CST. Instrument serial no. 124, film record 20,133. Initial cal. 0°C; final cal. 0°C.

DATE	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17
TIME														
0130		5.7	5.6	5.6	5.6	5.5	5.5	5.4	5.2	5.1	5.1	5.1	5.0	5.0
0300								5.4						
0430								5.3				5.1		
0600												5.0		
0730		5.7					5.5		5.2					
0900		5.6					5.4		5.1					
1030														
1200	5.6					5.5								
1330						5.6								
1500														
1630														
1800					5.6									
1930	5.6				5.5	5.6		5.3						
2100	5.7					5.5		5.2						
2230														
2400	5.7	5.6	5.6	5.6	5.5	5.5	5.4	5.2	5.1	5.1	5.1	5.0	5.0	5.0

DATE	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31
0130 0300	5.0 5.0	4.6	4.4	4.2	4.3	4.3	4.2	4.2	4.1	4.1	4.0	4.0	4.0	4.0
0430	4.9													
0600	4.8	4.6	4.4											
0730	4.7	4.5	4.3			4.3				4.1				
0900						4.2				4.0				
1030														
1200														
1330	4.7			4.2										
1500	4.6			4.3										
1630														4.0
1800								4.2						3.9
1930		4.5						4.1					4.0	
2100		4.4	4.3										3.9	
2230			4.2											
2400	4.6	4.4	4.2	4.3	4.3	4.2	4.2	4.1	4.1	4.0	4.0	4.0	3.9	3.9
DATE	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14
TIME 0130	4.0	4.0	4.0	4.0	4.0	3.9	3.9	3.9	3.9	3.9	3.8	3.8	3.5	3.4
0300	4.0	4.0	7.0	7.0	4.0	3.7	3.7	3.7	3.7	3.7	3.0	3.7	3.3	3.3
0430												3.6		3,2
0600					4.0							3.0	3.5	3.1
0730					3.9								3.4	3.1
0900					3.,					3.9			3.4	
1030										3.8		3.6		
1200												3.5		
1330														
1500														
1630	4.0													3.1
1800	3.9													3.2
1930														
2100				4.0										
2230				3.9										
2400	3.9	4.0	4.0	3.9	3.9	3.9	3.9	3.9	3.9	3.8	3.8	3.5	3.4	3.2
DATE	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28
TIME														
0130	3.1	3.0	3.0	3.1	3.0	3.1	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.0
0300														
0430														
0600				3.1		3.1						3.1		
0730				3.0		3.0						3.0	3.1	
0900	3.1												3.0	
1030	3.0													
1200														
1330														
1500														
1630					3.0									
1800			3.0		3.1									
1930			3.1											
2100											3.0			
2230	2.0	2.0	2 1	2.0	2 1	2.0	2.0	2.0	2 0	2 0	3.1	2.0	2.0	2.0
2400	3.0	3.0	3.1	3.0	3.1	3.0	3.0	3.0	3.0	3.0	3.1	3.0	3.0	3.0

LAKE MICHIGAN, STATION 28, 30 m continued.

DATE TIME 0130 0300 0430 0600 0730 0900 1200 1330 1500 2400 DATE TIME 0130 0430 0600 0730 0730 0730 0730 0730 0730 07	1-29 3.0	1-30 3.0	1-31 3.0	2-1 3.0	2-2 3.0	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11
0130 0300 0430 0600 0730 0900 1200 1330 1500 1630 1800 2100 2230 2400 DATE TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330	3.0	3,0	3.0	3.0	2 0									
0600 0730 0900 1030 1200 1530 1500 1630 2100 2230 2400 DATE TIME 0130 0430 0430 0430 0900 1030 1230					3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
0900 1030 1200 1330 1500 1630 1800 1930 2100 2230 2400 DATE TIME 0130 0430 0600 0730 0900 1030 1200 1330														
1030 1200 1330 1500 1630 1800 2100 2230 2400 DATE TIME 0130 0300 0430 0600 0730 0900 1030 1230 1230														3.0
1330 1500 1630 1800 1930 2100 2230 2400 DATE TIME 0130 0300 0430 0600 0730 0900 1030 1200														2.9
1500 1630 1800 1930 2100 2230 2400 DATE TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330														
1630 1800 1930 2100 2230 2400 DATE TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330														
1930 2100 2230 2400 DATE TIME 0130 0430 0600 0730 0900 1030 1200 1330														
2100 2230 2400 DATE TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330														
2400 DATE TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330														
DATE TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.9
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25
0300 0430 0600 0730 0900 1030 1200 1330														
0600 0730 0900 1030 1200 1330	2.9	2.9	2.8	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9	2.8	2.7	2.7
0730 0900 1030 1200 1330														
0900 1030 1200 1330		2.9										2.8		
1200 1330		2.8												
1330														
1630							2.8							
1800							2.9							
1930 2100											2.9			
2230											2.8			
2400	2.9	2.8	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9	2.7	2.7	2.7	2.7
DATE	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10
0130	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.5	2.4	2.4	2.4	2.4
0300 0430												2.4		
0600									2.7	2.5				
0730 0900									2.6	2.4				
1030												2.3		
1200 1330												2.4		
1500 1630														
1800														
1930 2100									2.6					
2230									2.6					
2400	2.7		2.7	2.7	2.7	2.7	2.7	2.7	2.5	2.4	2.4	2.4	2.4	2.4

LAKE MICHIGAN, STATION 28, 30 m continued.

DATE	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24
TIME														
0130	2.4	2.4	2.3	2.2	2.2	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2
0300			2.2										2.2	
0430 0600													2.1	
0730						2.3								
0900						2.2	2.2					2.3		
1030							2.3					2.2		
1200							2.3						2 1	
1330													2.1	
1500													2.2	
1630					2.2									
1800					2.3									
1930														
2100														
2230		2.4												
2400	2.4	2.3	2.2	2.2	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2
DATE	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7
TIME						-								
0130	2.3	2.3	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.2	2.2			
0300														
0430					2.3						2.2			
0600 0730					2.2						Data			
0900									0.1		ends			
1030									2.1 2.2					
1200									2.2					
1330														
1500														
1630														
1800														
1930														
2100														
2230														
2400	2.3	2.3	2.3	2.3	2.2	2.2	2.1	2.1	$2 \circ 2$	2.2				

LAKE MICHIGAN - STATION 28. Depth 60 m.
Start 4 December 1963, 1144 CST; end 23 April 1964, 1430 CST.
Instrument serial no. 281, film record 20,134. Initial cal. 0°C; final cal. 0.3°C.

DATE TIME	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17
0130		6.1 5.9	5.9	5.9	5.9 5.7	6.0 5.8	5.4 5.5	5.9	5.7	5.7	5.6	5.5	5.4	5.2
0430		3.9		5.9		5.4	5.5						5.4	
0600 0730			5.9	6.0	5.7 5.6	5.3	5.6 5.7					5.5 5.4	5.3	
0900 1030		5.9 6.0	5.8 6.0		5.7 5.9	5.2 4.8	5.7 5.8							5.2
1200 1330	5.7 6.0	6.0 5.7		6.0	6.0 5.8	5.0 5.7								5.1
1500 1630	6.0 5.9	5.8	6.0	5.9 5.8	5.5	5.9 5.1	5.8 5.9	5.9 5.8			5.6 5.5			
1800	5.7	5.9	5.9 5.9	5.8	5.3	5.0	3.9	3.8			3.3			
1930 2100	5.8 6.0	6.0 5.9	6.0	6.0	5.4 5.9	5.0 5.4				5.7			5.3	
2230 2400	5.9 6.0	6.0 5.9	6.0 5.9	6.0 5.9	5.9	5.4 5.6	5.9	5.8 5.7	5.7	5.6 5.6	5.5	5.4	5.2 5.2	5.1
DATE	12-18		12-20	12-21	12-22		12-24				12-28		12-30	12-31
TIME 0130	5.1	5.0	5.0	4.9	4.9	4.9	4.8	4.8	4.8	4.7	4.3	4.3	4.2	4.1
0300 0430			5.0							4.7 4.6				
0600 0730	5.1 5.0		4.9	4.9					4.8	4.0		, ,	4.2	
0900	5.0			4.9		4.9			4.8	4.6		4.3 4.2	4.1	
1030 1200						4.8				4.5				4.1 4.0
1330 1500				4.8						4.5				
1630 1800				4.9						4.4				
1930 2100														
2230										4.4				
2400 DATE	5.0 1-1	5.0 1-2	4.9 1-3	4.9 1-4	4.9 1-5	4.8 1-6	4.8 1-7	4.8 1-8	4.7 1-9	4.3 1-10	4.3 1-11	4.2 1-12	4.1 1-13	4.0 1-14
TIME				4.1	4.1	4.1	4.1	3.9	3.9					
0130 0300	4.0	4.0	4.0	4.1	4.1	4.1	4.1	3.9	3.9	3.9	3.9	3.9	3.8	3.7
0430 0600			4.0 4.1										3.8	3.7
0730 0900													3.7	3.5 3.5
1030 1200							4.1 4.0							3.4
1330 1500							7.0							3.4
1630												3.9		3.5
1800 1930												3.8		3.6 3.8
2100 2230														3.9
2400	4.0	4.0	4.1	4.1	4.1	4.1	4.0	3.9	3.9	3.9	3.9	3.8	3.7	3.9

LAKE MICHIGAN, STATION 28, 60 m continued.

DATE	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28
TIME 0130 0300	3.9	3.1	3.0	3.6	3.5	3.8	3.7	3.7	3.7	3.7	3.6	3.4	3.2	3.2
0430 0430 0600 0730	3.9 3.8 3.7 3.5				3.5 3.6						3.6 3.5	3.4 3.3		
0900 1030 1200 1330 1500		3.1 3.0	3.0 3.1 3.3	3.6 3.5	3.6 3.7	3.8 3.7					3.5 3.4			
1630 1800 1930 2100 2230	3.5 3.3 3.2		3.3 3.4 3.5 3.6		3.7 3.8					3.7 3.6		3.3 3.2		
2400	3.2	3.0	3.6	3.5	3.8	3.7	3.7	3.7	3.7	3.6	3.4	3.2	3.2	3.2
DATE TIME	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11
0130 0300	3.2	3.2	3.2	3.2	3.3	3.3	3.2	3.0 3.1	2.9	2.9	2.9	2.9	2.9	2.9
0430 0600 0730 0900 1030 1200 1330				3.2 3.3			3.2 3.1	3.1 3.0		2.9 3.0 3.0 2.9	2.9 3.0 2.9			
1500 1630 1800 1930 2100 2230						3.3 3.2	3.1 3.0	3.0 2.9		2.9 3.0 2.9				
2400	3.2	3.2	3.2	3.3	3.3	3.2	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9
DATE TIME	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25
0130 0300 0430 0600 0730 0900	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.7 2.7 2.8	2.7	2.7	2.7
1030 1200 1330 1500 1630										2.8 2.7				
1800 1930 2100 2230											2.8 2.7			
2400	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.7

DATE	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10
TIME 0130	2.7	2.7	2.6	2.6	2.7	2.7	2.6	2.6	2.6	2.5	2.5	2.4	2.4	2.4
0300														
0430 0600						2.7								
0730														
0900 1030														
1200														
1330		2.7												
1500 1630		2.6									2.5 2.4			
1800				2.6										
1930 2100	2.7			2.7										
2230	2.6													
2400	2.6	2.6	2.6	2.7	2.7	2.6	2.6	2.6	2.6	2.5	2.4	2.4	2.4	2.4
DATE	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24
TIME 0130	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.3	2.3	2.4	2.4	2.4	2.0	2.0
0300 0430												0 /		
0600							2.5					2.4		
0730			2.4			2.4	2.4							
0900 1030			2.3			2.5								2.0
1200														2.1
1330 1500			2.2						2.3					
1630			2.4						2.4			2.3		
1800												2.2		
1930 2100												2.2		
2230												2.1		
2400	2.4	2.4	2.4	2.4	2.4	2.5	2.4	2.3	2.4	2.4	2.4	2.1	2.0	2.1
DATE	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7
0130	2.1	2.1	2.1	2.2	2.1	2.0	2.1	2.1	2.2	2.1	2.2	2.2	2.1	2.1
0300 0430			2.1		2.1									
0600			2.2		2.0					2.1				2.1
0730						2.0				2.2				2.0
0900 1030				2.2		2.1								
1200														
1330 1500								2.1						2.0
1630								2.2						2.1
1800 1930									2.2			2.2		
2100									4.1			2.1		
2230	0.1	0.1		0.1	2.0	0 1	0 1	2 2	2 1	2 2	2.2	2 1	2 1	2 1
2400	2.1	2.1	2.2	2.1	2.0	2.1	2.1	2.2	2.1	2.2	2.2	2.1	2.1	2.1

LAKE MICHIGAN, STATION 28, 60 m continued.

DATE	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20	4-21
TIME 0130	2.0	2.2	2.3	2.4	2.5	2.5	2.4	2.4	2.4	2.4	2.6	2.6	2.6	2.6
0300 0430														2.6
0600														2.7
0730 0900	2.0									2.4				
1030	2.1									2.5				
1200	2.2													
1330		2.2												
1500 1630		2.3											2.6	
1800				2.4		2.5							2.7	
1930				2.5		2.4				2.5				
2100 2230										2.6				
2400	2.2	2.3	2.3	2.5	2.5	2.4	2.4	2.4	2.4	2.6	2.6	2.6	2.7	2.7
DATE	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4	5-5
TIME														
0130 0300	2.7	2.7												
0430														
0600														
0730														
0900														
1030 1200														
1330														
1500		2.7												
1630		End o	£											
1800		recor												
1930 2100														
2230														
2400	2.7													

LAKE MICHIGAN - STATION 28. Depth 120 m. Start 4 December 1963, 1144 CST; end 23 April 1964, 1430 CST. Instrument serial no. 246, film record 20,135. Initial cal. 0°C; final cal. -1.5°C.

DATE	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12_17
TIME	12-4				2.6		2.6		2.6					
0130 0300		2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.7	3.0	3.1 3.1
0430													3.0	3.0
0600 0730											2,6		3.1	3.0 2.9
0900											2.7			
1030 1200	2.6												3.1	
1330	2.0												3.0	
1500 1630														
1800														
1930												0.7		
2100 2230												2.7		
2400	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.9	3.0	2.9
DATE	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31
0130	2.9	2.9	2.8	2.7	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.9	2.9
0300 0430									2.8			2.8		2.9
0600								2.7	2.7			2.9		2.8
0730								2.8						
0900 1030		2.9 2.8	2.8											
1200														
1330 1500														
1630														
1800 1930									2.7					
2100									2.8					
2230 2400	2.9	2.8	2.7	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.9	2.9	2.8
DATE	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14
TIME 0130	2.8	2.8	2.9	2.9	2.9	2.9	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.0
0300	2.0	2.0	2.,	2.,	2.,		3.0	3.1	3.1	3.1	J. 1	3.1	3,1	5.0
0430 0600														
0730														
0900														
1030 1200		2.8												
1330		2.9												
1500 1630														
1800													3.1	
1930 2100													3.0	
2230	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2 1	2 1	2 1	3.1	2 1	3.0	3.0
2400	2.8	2.9	2.9	2.9	2.9	2.9	3.0	3.1	3.1	3.1	3.1	3.1	3.0	3.0

0300 0430 0600 2.9 0730 0900 1030 1200 1330 1550 1630 1800 1930 2.9 2230 2400 2.9 2.9 2.9 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	3.0 3.0 2-11 2.9
0430 0600 2.9 0730 3.0 0900 1030 1200 1330 1500 1630 1800 1930 3.0 2100 2.9 2230 2400 2.9 2.9 2.9 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	2-11
1030 1200 1330 1500 1630 1800 1930 2100 2200 2400 2.9 2230 2400 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9	2-11
1330 1500 1630 1800 1930 2100 2210 2400 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9	2-11
1630 1800 1930 3.0 2100 2.9 2230 2400 2.9 2.9 2.9 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	2-11
2100 2.9 2230 2400 2.9 2.9 2.9 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	2-11
2400 2.9 2.9 2.9 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	2-11
DATE 1-29 1-30 1-31 2-1 2-2 2-3 2-4 2-5 2-6 2-7 2-8 2-9 2-10 2	
TIME	. 9
0430 2.8 0600 2.9	
0730 0900	
1030 3.0 3.1	
1200 3.1 3.0	
1330 1500	
1630 3.0	
1800 3.1	
1930 2100 3.1 3.0 2.8 2	2.9
2230 3.0 2.9	2.7
2400 3.1 3.1 3.1 3.0 3.1 3.0 3.0 2.9 2.9 2.9 2.8 2.8 2.9 2	2.7
DATE 2-12 2-13 2-14 2-15 2-16 2-17 2-18 2-19 2-20 2-21 2-22 2-23 2-24 2 TIME	2-25
0130 2.6 2.5 2.6 2.6 2.6 2.6 2.5 2.5 2.4 2.4 2.5 2.5 2.5 2.5 2.5	2.5
0430 0600 2.5 2.5 2.4 0730 2.6 2.4 2.3	
0900 1030	
1200	
1330 2.3 1500 2.4	
1630 2.6	
1800 2.5	
1930 2100	
2230	.5

			•		•									
DATE	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10
TIME														
0130 0300	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.7	2.6	2.6	2.5	2.5	2.5	2.5
0430														
0600														
0730														
0900														
1030														
1200			2.5							2.6				
1330			2.6							2.5				
1500 1630														
1800														
1930							2.6							
2100							2.7							2.5
2230														2.4
2400	2.5	2.5	2.6	2.6	2.6	2.6	2.7	2.7	2.6	2.5	2.5	2.5	2.5	2.4
DATE	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24
TIME 0130	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.6
0300	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0
0430														
0600														
0730					2.4									
0900					2.5									
1030														
1200 1330														
1500														
1630										2.5				
1800										2.6				
1930														
2100														
2230 2400	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.6
DATE	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7
TIME	3-23	3-20	3-27	3-20	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-3	4-0	4-7
0130	2.6	2.7	2.8	2.8	2.7	2.6	2.5	2.4	2.4	2.5	2.6	2.4	2.4	2.5
0300					2.7									
0430 0600					2.6									
0730					2.0						2.6			
0900	2.6			2.8							2.5			
1030	2.7			2.7										
1200									2.4					
1330		2.7				2.6			2.5					
1500		2.8				2.5								
1630 1800										2.5				
1930										2.6				
2100											2.5			
2230											2.4			
2400	2.7	2.8	2.8	2.7	2.6	2.5	2.5	2.4	2.5	2.6	2.4	2.4	2.4	2.5

LAKE MICHIGAN, STATION 28, 120 m continued.

DATE	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20	4-21
TIME														
0130	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.5	2.6	2.7	2.6	2.5
0300														
0430												0 7		
0600 0730								2.5			2.6	2.7 2.6		
0900								2.6			2.5	2.0		
1030								2.0			2.5			
1200											2.6		2.6	
1330											2.0		2.5	
1500										2.5	2.6		2.5	
1630									2.6	2.6	2.7			
1800									2.5	2.0				
1930														
2100														
2230														
2400	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.5	2.6	2.7	2.6	2.5	2.5
DATE	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4	5-5
TIME			4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4	5-5
TIME 0130	4-22 2.4	4-23 2.4	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4	5-5
TIME 0130 0300			4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4	5-5
TIME 0130 0300 0430			4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4	5-5
TIME 0130 0300 0430 0600			4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4	5-5
TIME 0130 0300 0430 0600 0730			4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5–3	5-4	5-5
TIME 0130 0300 0430 0600 0730 0900			4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4	5-5
0130 0300 0430 0600 0730 0900 1030			4-24	4-25	4-26	4-27	4-28	4-29	4-30	5–1	5-2	5-3	5-4	5-5
0130 0300 0430 0600 0730 0900 1030 1200		2.4	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5–1	5-2	5-3	5-4	5-5
0130 0300 0430 0600 0730 0900 1030 1200 1330		2.4	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4	5-5
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500		2.4 2.4 Data	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4	5-5
0130 0300 0430 0600 0730 0900 1030 1200 1330		2.4	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4	5-5
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630		2.4 2.4 Data	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4	5-5
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800		2.4 2.4 Data	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4	5-5
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930		2.4 2.4 Data	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4	5-5
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1800 1930 2100		2.4 2.4 Data	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3	5-4	5-5

LAKE MICHIGAN - STATION 30. Depth 10 m. Start 5 December 1963, 0900 CST; end 19 April 1964, 0805 CST. Instrument serial no. 237, film record 20,146. Initial cal. Indet.; final cal. -0.6°C.

DATE	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18
0130		6.4	6.4	6.3	6.3	6.1	6.1	6.1	6.0	5.6	5.5	5.2	4.9	4.9
0300 0430		6.4 6.3	6.4 6.3						5.9 5.9			5.1		4.8
0600 0730									5.8 5.7	5.6 5.5	5.5 5.4	5.1		
0900	6.4							6.1	5.6	•••		5.0		4.8
1030 1200								6.0		5.5	5.4 5.3	4.9	4.9 4.8	4.9
1330 1500					6.3 6.2					5.4			4.6 4.7	4.9 5.0
1630 1800		6.3			6.2 6.1			6.0 6.1	5.6	5.4	5.3		4.8	5.0
1930		6.4			0.1			0.1	5.7	5.5	5.2		4.9	5.1
2100 2230								6.1	5.7 5.6					5.1
2400	6.4	6.4	6.3	6.3	6.1	6.1	6.1	6.0	5.6	5.5	5.2	4.9	4.9	5.0
DATE	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1
0130 0300	5.0 4.9	4.5 4.5	4.6	4.3	5.6 5.6	5.8	5.9 5.9	5.7	5.6	5.3	5.1	4.7 4.7	3.6	3.6
0430	4.7	4.4	4.6		5.5		5.8				5.1	4.6		
0600 0730	4.6	4.3 3.9	4.5		5.5		5.7		5.6 5.5		5.0	4.4 3.9		
0900		3.9			5.6			5.7	3.3			3.9		
1030		4.1			5.6	5.8		5.6			5.0			
1200 1330	4.6 4.7	4.2 4.1			5.7	5.9	5.7	5.0 4.9	5.5 5.4		4.9			
1500	4.8	7.1	4.5	4.3	5.7		5.6	5.3	J					
1630	, ,	4.1	4.4	4.5	5.8		5.3	5.5						
1800 1930	4.8 4.7	4.4 4.6		4.5 4.7			4.9 4.8	5.6						
2100	4.6			5.3			5.2			5.3		3.9		
2230 2400	4.6 4.5	4.6	4.4	5.5 5.6	5.8	5.9	5.7 5.7	5.6	5.4 5.3	5.2 5.1	4.9 4.8	3.8 3.7	3.6	3.6
DATE	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15
TIME														
0130 0300	3.6	4.0 4.0	3.6	3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.4 3.4	3.3 3.3	3.2 3.2	3.4
0430		3.7			3.6						3.3	3.4	3.3	
0600 0730		3.6			3.5			3.6		3.5 3.4		3.5	3.3	
0900			3.6					3.5		314		3.5	3.4	
1030			3.9									3.6	3.3	
1200 1330	3.6 3.8		3.9		3.5								3.4	
1500			4.0		3.6							3.6		
1630 1800	3.8 3.6		4.1									3.5 3.5		
1930	3,8		4.1									3.4		
2100	4.0		4.0									3.3		3.4
2230 2400	4.0	3.6	3.7 3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.4	3.3	3.3 3.2	3.4	3.3 3.3

DATE	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29
0130 0300 0430	3.3 3.3 3.2	3.2	3.1	3,1	3.2	3.2	3.2	3.3	3.3	3.3	3.2	3.2 3.2 3.1	3.1	3.0
0430 0600 0730 0900 1030 1200 1330	3,2											3.1	3.1 3.0	
1500 1630 1800 1930 2100 2230		3.2 3.1		3.1 3.2			3.2 3.3			3.3 3.2				
2400	3.2	3.1	3.1	3,2	3.2	3.2	3.3	3.3	3.3	3.2	3.2	3.1	3.0	3.0
DATE	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12
TIME 0130 0300 0430 0600 0730	3.0 3.0 2.9	2.9	2.9	3.0	3.1	3.1 3.1 3.2	3.1	3.1	3.1	3.1	3.1 3.1 3.0	3.0 2.9	2.9 2.9 2.8	2.8
0900 1030 1200 1330 1500 1630 1800 1930 2100			2.9 3.0	3.0 3.1		3.2 3.1								2.8 2.7
2230 2400	2.9	2.9	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0	2.9	2.8	2.7
DATE	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26
TIME 0130 0300 0430 0600	2.7	2.7	2.8	2.0 1.9 1.8 1.7	1.9 1.8	2.7	2.8	2.8	2.7 2.7 2.6	2.6	2.5	2,6	2.6 2.6 2.5	2.6 2.6 2.5
0730 0900 1030				1.6						2.6 2.5	2.6		2.5 2.6	
1200 1330 1500 1630 1800 1930 2100		2.7 2.8	2.8 2.7 2.5 2.4 2.3	1.6 1.7 1.7 1.8 1.8 1.9	1.8 1.9 2.0 2.1 2.4 2.5 2.6	2.7		2.8						
2230 2400	2.7	2.8	2.2	1.9	2.6	2.8 2.8	2.8	2.7 2.7	2.6	2.5	2.6	2.6	2.6	2.5

DATE	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11
0130 0300 0430 0600 0730 0900 1030 1200	2.5 2.4 2.4 2.3	2.5	2.5 2.4	2.6	2.6	2.6	2.6 2.7	2.7 2.7 2.5 2.3 2.2 2.2 2.1 2.1	2.2 2.2 2.1	2.1 2.1 2.2 2.2 2.3 2.4 2.4	2.5 2.4 2.3	2.4 2.3	1.9 1.9 1.8 1.7	1.6
1330 1500 1630 1800		2.5	2.4					2.2	2.2	2.5	2.3	2.3		
1930 2100 2230	2.3	2.6	2.5 2.6						2.2			2.2 2.0 2.0		1.6 1.7
2400	2.4	2.6	2.6	2.6	2.6	2.6	2.7	2.2	2.1	2.5	2.4	1.9	1.6	1.7
TIME	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25
0130 0300 0430 0600 0730	1.7	2.1 2.1 2.2	2.0 1.9	2.0 2.0 1.9	1.8	1.8	1.8	1.8	2.0 2.0 1.9	2.3 2.3 2.2	2.1 2.0 2.0 1.9	1.9 1.8	2.0	2.0 2.0 1.9
0730 0900 1030 1200 1330 1500	1.7 1.8 1.8 1.9		1.9 2.0 2.0 2.1	1.9 2.0 2.1 2.2 2.3				1.8 1.9	1.9 2.0 2.1 2.2		1.8 1.9 2.0	1.8 1.9	1.9	1.9
1800 1930 2100 2230	1.9 2.0 2.1	2.2	2.1	2.0 1.8					2.2	2.2 2.1 2.1	2.0 1.9		1.9 2.0	2.0 2.1
2400	2.1	2.0	2.0	1.8	1.8	1.8	1.8	1.9	2.3	2.0	1.9	2.0	2.0	2.1
DATE TIME 0130 0300 0430	3-26 2.1 2.0 1.9	3-27 1.9	2.0	3-29 2.0	3-30 1.9	3-31 1.8	1.8	1.9	1.8	1.7	1.7	1.9	1.9	1.9
0600 0730 0900 1030	1.9	1.9		2.0 1.9	1.9 1.8			1.9 1.8	1.8 1.7		1.7 1.8			
1200 1330 1500 1630 1800		2.0 2.1					1.8 1.9				1.8 1.9			1.9 2.0
1930 2100 2230 2400	1.9	2.0	2.0	1.9	1.8	1.8	1.9	1.8	1.7	1,7	1.9	1.9	1.9	2.0

LAKE MICHIGAN, STATION 30, 10 m continued.

DATE	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20	4-21	4-22
TIME														
0130	2.0	2.1	2.2	2.1	2.1	2.0	2.2	2.3	2.4					
0300						2.1								
0430			2.2			2.1								
0600			2.1			2.0	2.2							
0730							2.1							
0900					2.1									
1030					2.2	2.0								
1200	2.0					1.9								
1330	2.1													
1500								2.3	2.4					
1630						1.9	2.1	2.4	Remov					
1800		2.1				2.0	2.2		at 15					
1930		2.2			2.2	2.1			at 13	00				
2100					2.0	2.2								
2230							2.2							
2400	2.1	2.2	2.1	2.1	2.0	2.2	2.3	2.4						

LAKE MICHIGAN - STATION 30. Depth 15 m. Start 5 December 1963, 0900 CST; end 19 April 1964, 0805 CST. Instrument serial no. 284, film record 20,147. Initial cal. 0°C; final cal. 0.2°C.

DATE	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18
TIME														
0130		6.6	6.5	6.5	6.6	6.4	6.1	6.1	6.3	6.1	5.8	5.6	5.5	5.5
0300														
0430			6.5								5.8			5.5
0600			6.6		6.6					6.1	5.7			5.4
0730		6.6			6.5					6.0				
0900	6.9	6.5			6.5				6.3					5.4
1030					6.4			6.1	6.2					5.3
1200			6.6					6.2				5.6		
1330			6.5					6.2				5.5		
1500	6.9					6.4		6.3						
1630	6.8			6.5		6.3								
1800				6.6		6.3								
1930	6.8					6.2								
2100	6.7					6.1				6.0	5.7			
2230	6.7									5.9	5.6			
2400	6.7	6.5	6.5	6.6	6.4	6.1	6.1	6.3	6.2	5.9	5.6	5.5	5.5	5.3

DATE	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1
TIME 0130	5.3	5.2	5.2	5.3	5.1	4.6	4.7	4.5	5.6	5.9	6.0	5.7	5.8	5.7
0300	3.3	3.2	5.2		5.1	4.5	4.8	7.5	3.0	٥.,	0.0	3.7	5.9	3.7
0430 0600	5.3		5.0	5.3 5.2	5.0 4.9	4.4 4.3	4.9	4.5	5.6			5.7		
0730	5.2			5.2	4.9	4.3	4.9	4.6	5.7			5.8		
0900		5.2		5.1	4.8	4.5	4.8						5.9	
1030 1200		5.0	5.0 5.1	4.9 4.8	4.8	4.6 4.8	4.7						5.8	
1330			5.1	4.8	4.7	4.9				5.9	6.0 5.9	5.8 5.6	5.7 5.6	5.7 5.6
1500		5.0	5.2	4.7		5.0	4.7		5.7	6.0	3.,	5.5	5.4	3.0
1630		5.2	5.2	4.7			4.6		5.8			5.4	4.8	
1800 1930			5.3	4.8 4.9	4.7 4.5	5.0 4.9	4.5	4.6 4.7				5.1 4.9	5.1 5.4	5.6 5.5
2100				5.0	4.4	4.9		4.9	5.8		5.9	5.1	5.6	5.5
2230					4.2	4.8		4.9	5.9		5.8	5.7	5.7	
2400	5.2	5.2	5.3	5.0	4.3	4.7	4.5	5.3	5.9	6.0	5.7	5.8	5.7	5.5
DATE	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15
0130	5.5	5.5	5.3	4.9	4.0	4.0	3.0	4.0	4.2	3.8	4.5	3.7	3.7	3.7
0300 0430				4.8 4.7					4.1 4.0		4.4 4.3		3.7	3.7 3.6
0600			5.3	4.3			3.9	4.0	4.0		4.1		3.6	3.0
0730			5.2	4.2			4.0	4.1	4.0		4.0			
0900 1030					4.0		3.9	4.2	4.1	2 0	4.0			
1200		5.5			4.1		3.9	4.2		3.8 3.9	3.9 3.9			
1330		5.4			4.1		3.8	4.0	4.1	4.1	3.8			
1500		5.4			4.0		3.7	3.9	4.0	4.2	3.8		3.6	
1630 1800		5.3	5.2	4.2			3.7 3.8	4.3	4.0 4.1	4.3 4.3	3.7		3.7	
1930			5.1	4.1			3.0		4.1	4.4				
2100			5.0	4.0				4.4	4.0	4.4				
2230 2400	5.5	5.3	5.0 4.9	4.0	4.0	4.0 3.9	3.8	4.5 4.4	3.9 3.9	4.5 4.5	3.7	3.7	3.7	3.6
DATE	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29
TIME														
0130 0300	3.6	3.6	3.6	3.5	3.5	3.3	3.3	3.7 3.6	3.6	3.5	3.2	3.2	3.1	3.1
0430					3.5			3.5						
0600					3.4			3.4	3.6					
0730 0900					3.4 3.3		3.3 3.4	3.3	3.5 3.4					3.1 3.0
1030					3.3		3.5	3.2	J.4					5.0
1200							3.7	3.1	3.4					
1330 1500							3.7	3.2 3.2	3.5					
1630							3.8	3.3						
1800										3.5				
1930 2100			3.6					3.3		3.4 3.4				
2230			3.5					3.5		3.3				
2400	3.6	3.6	3.5	3.5	3.3	3.3	3.8	3.5	3.5	3.2	3.2	3.2	3.1	3.0

			-		•									
DATE	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12
TIME 0130 0300 0430 0600	3.0	3.1 3.1 3.2	3.2	3.2	3.2	3.2	3.3	3.2 3.2 3.3	3.2 3.2 3.1	3.0	3.0	2.9	2.9	2.9
0730 0900 1030 1200 1330 1500 1630	3.0 3.1			3.2		3.2 3.3	3.3 3.2	3.3 3.2						
1800 1930 2100 2230				3.1 3.1 3.2			J.2		3.1 3.0		3.0			
2400	3.1	3.2	3.2	3.2	3.2	3.3	3.2	3.2	3.0	3.0	2.9	2.9	2.9	2.9
DATE	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26
TIME 0130	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.7
0300 0430 0600 0730 0900		2.9										2.9	2.9 2.8	2.7
1030 1200 1330 1500 1630 1800 1930 2100		2.8 2.9										2.8	2.8	
2230 2400	0.0		• •	•	• •									
DATE	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.7	2.6
TIME	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11
0130 0300	2.6	2.6	2.6	2.6	2.6	2.6	2.4	1.8 1.8	1.9	2.7	2.8	2.8	2.6	2.2
0430 0600 0730 0900 1030							2.2 2.2 2.1 2.0	1.9	1.9 2.0 2.1 2.2			2.8 2.7	2.6 2.5	2.2 2.1 2.1
1200 1330 1500 1630							2.0 1.9 1.8 1.8	2.0 2.1 2.1 2.0 2.0	2.3 2.4 2.5 2.6	2.7 2.8			2.5 2.4 2.4	2.2
1800 1930 2100 2230						2.6 2.5	1.7	1.9	2.6 2.7			2.7	2.4 2.3 2.2	2.2 2.3
2400	2.6	2.6	2.6	2.6	2.6	2.5	1.7	1.9	2.7	2.8	2.8	2.6	2.2	2.3

DATE	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25
0130 0300	2.3	2.2	2.5	2.4	2.5	2.5	2.4	2.3	2.4	2.4	2.4	2.5	2.5	2.5
0430 0600 0730 0900 1030 1200 1330 1500 1630 1800	2.3 2.2 2.2 2.1	2.2 2.3 2.4 2.4 2.5	2.5				2.3 2.2 2.2 2.3	2.3	2.4 2.3 2.3 2.4					2.5 2.4
2100 2230 2400	2.1 2.2 2.2	2,5	2.4	2.4	2.5	2.4	2,3	2.4	2.4	2.4	2.4 2.5 2.5	2.5	2.5	2,4
DATE	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8
TIME														
0130 0300	2.5	2.1	2.1	2.0	2.3	2.2	2.3	1.7 1.7	1.6	1.7	1.9 1.9	2.3	2.1	1.9
0430		2.0						1.6			2.0		2.1	
0600 0730				2.0						1.7 1.6			2.0	1.9 1.8
0900 1030		2.0		2.1							2.0			
1200		2.1		2.2		2.2	2.3				2.1	2.3	2.0	
1330 1500	2.5			2.2		2.3	2.2			1.6		2.2	2.1	1.8
1630	2.4			2.3			2.0			1.7	2.1	2.1		2.0
1800 1930	2.4						1.9			1.7	2.2		2.1	2.0
2100 2230	2.2						1.0			1.8	2.3			2.1
2400	2.2	2.1	2.1	2.3	2.3	2.3	1.9 1.8	1.6	1.6	1.8 1.9	2.3	2.1	2.0 1.9	2.0 1.8
DATE	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20	4-21	4-22
0130 0300 0430	1.5	1.5	1.6	1.6	1.6	1.9 1.9 2.0	2.1	2.1	1.8	2.0	1.9			
0600 0730 0900 1030 1200		1.5			1.6 1.7		2.1 2.2 2.3 2.2		1.8 1.9 2.0 2.1	2.0	1.9 End o	f		
1330		1.6			1.7									
1500 1630					1.8		2.2	2.1						
1800 1930						2.0	2.1	2.0	2,1	2.1				
2100					1.8	2.1		2.0	2.0	2.0				
2230 2400	1.5	1.6	1.6	1.6	1.9 1.9	2.1	2.1	1.9 1.8	2.0	2.0				

LAKE MICHIGAN - STATION 30. Depth 22 m.
Start 5 December 1963, 0900 CST; end 19 April 1964, 0805 CST.
Instrument serial no. 312, film record 20,148. Initial cal. 0°C; final cal. -0.4°C.

DATE	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18
0130 0300		6.5 6.4	6.5	6.5 6.4	6.3	6.0	6.0	6.0	5.9 5.8	5.5	5.5 5.5	5.3	5.1	5.0
0430 0600									5.8 5.7		5.4			
0730 0900	6.7			6.4 6.5					5.7					5.0
1030 1200				6.5					5.6			5.3 5.2	5.1 5.0	5.1
1330				6.4	()			6.0					4.9	5.1
1500 1630				6.3	6.3 6.2			5.9					4.9	5.2 5.3
1800 1930	6.7	6.4		6.3	6.1 6.0						5.4 5.3	5.2 5.1	5.0 5.1	
2100 2230	6.6 6.5	6.5							5.6 5.5				5.1	5.3
2400	6.5	6.4	6.5	6.2	6.0	6.0	6.0	5.9	5.5	5.5	5.3	5.1	5.0	5.2
DATE	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1
0130	5.1	4.7	4.9	4.5	5.3	5.7	5.7	5.7	5.6	5.4	5.2	4.7	4.0	3.8
0300 0430	5.0 4.9	4.6	4.8 4.8		5.5		5.7					4.6 4.3	3.9 3.8	
0600 0730	4.7	4.6	4.7			5.7 5.8	5.6	5.7 5.6	5.6			4.3	3.8	
0900		4.2	4.7		5.5	5.8			5.5			4.1	4.0	2.0
1030 1200	4.7	4.4 4.5	4.8 4.8	4.5	5.6 5.6	5.9	5.6	5.6 4.9			5.2 5.1		4.0 3.9	3.8 3.7
1330 1500	4.8 4.9	4.4	4.7	4.6 4.6	5.7	5.9	5.4	4.5		5.4 5.3	5.0		3.9	3.7 3.8
1630 1800	5.0 5.0	4.4	4.7 4.6	4.7		5.8	5.2 4.9	4.8 5.3	5.5				3.8	3.8
1930	4.9	4.8	4.6	4.7		5.8	4.8	5.6	5.4			4.1		3.7
2100 2230	4.8 4.7	5.0 5.0	4.5	4.9 5.2		5.7	4.8 5.5			5.3		4.0		3.7
2400	4.7	4.9	4.5	5.2	5.7	5.7	5.6	5.6	5.4	5.2	5.0	4.0	3.8	3.6
DATE	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15
0130 0300	3.7	4.4 4.3	3.8	4.1	3.6	3.6	3.6	3.6	3.6	3.4	3.4	3.3 3.4	3.3	3.6
0430 0600	3.7	4.1 3.9		3.9					3.6 3.5			3.6	•••	
0730	3.8	3.9	3.8	3.0			3.6		3.5			3.6	3.4	
0900 1030	3.8 3.9	4.0	3.9 4.3				3.7					3.7 3.8	3.5	
1200 1330	3.9 4.0		4.3	3.8 3.7									3.5	
1500 1630	4.1	4.0	4.5	•••					3.5			3.0	3.6	
1800	4.0	4.1	4.5				3.7		3.4			3.7 3.6	3.5	
1930 2100	4.0 4.3	4.0 3.9	4.4 4.3	3.7			3.6				3.4	3.5 3.4	3.5	3.6
2230 2400	4.3	3.8	4.1 3.9	3.6 3.6	3.6	3.6	3.6	3.6	3.4	3.4	3.3	3.3	3.6	3.5 3.5

DATE	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29
0130	3.5	3.5	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.2	3.0	3.0	3.0
0300		3.4								0.0		3.0	3.0	3.0
0430														
0600	3.5													
0730	3.6													
0900														
1030 1200	3.6						3.3							
1330	3.5						3.4							
1500	3.3						3.4			3.3	3.2			
1630										3.2	3.1			
1800														
1930														
2100		3.4												
2230	0.5	3.3			0.0									
2400	3.5	3.3	3.3	3.3	3.3	3.3	3.4	3.3	3.3	3.2	3.1	3.0	3.0	3.0
DATE	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12
0130	3.2	3.2	3.2	3.3	3.3	3.3	3.3	3.2	3.2	3.1	3.1	3.0	2.9	2,9
0300	3.5	3.2	3.2	3.3	3.3	3.3	3.3	3.2	3,2	3.1	3.1	3.0	200	2.,
0430														
0600							3.3							
0730			3.2				3.2							
0900 1030			3.3				3.3		3.2					
1200									3.1					
1330									5.2		3.1			
1500											3.0			
1630							3.3							
1800							3.2							
1930 2100														
2230												3.0		
2400	3.2	3.2	3.3	3.3	3.3	3.3	3.2	3.2	3.1	3.1	3.0	2.9	2.9	2.9
DATE	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26
TIME	2-13	2-17	2-13	2-10	2-1/	2-10	2-17	2-20	2 21	2-22	2-23	2-24	2-23	2-20
0130	2.9	2.9	3.0	2.4	2.3	2.9	3.0	3.0	2.8	2.6	2.5	2.7	2.7	2.7
0300 0430				2.3	2.2	3.0			2.8		2.5			
0600				4.4					2.6		2.6			
0730									2.6		2.0			
0900					2.2				2.5		2.6			2.7
1030					2.3						2.7			2.6
1200										2.6				
1330					2.3					2.5				
1500 1630			3.0		2.5			3.0						
1800			2.8	2.2	2.8			2.9	2.5					
1930		2.7	2.6	2.3	2.9				2.6					
2100		3.0	2.6					_						
2230	2.0	2.0	2.5	2 2	2.0	2.0	2.0	2.9	2 6	2 5	2 7	2 7	2.7	2.6
2400	2.9	3.0	2.4	2.3	2.9	3.0	3.0	2.8	2.6	2.5	2.7	2.7	2.1	2.6

DATE	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11
TIME 0130 0300 0430 0600 0730 0900 1030 1200	2.7	2.8	2.8 2.8 2.9	2.9	3.0	3.0	3.0	3.0 2.9 2.7 2.6 2.6 2.5	2.5	2.5 2.5 2.6 2.6 2.7 2.8	2.8	2.7	2.5 2.4 2.3 2.2	2.2
1500 1630 1800 1930 2100 2230	2.7										2.8	2.8 2.7 2.7 2.5		
2400	2.8	2.8	2.9	3.0	3.0	3.0	3.0	2.5	2.5	2.8	2.7	2.5	2.2	2.2
DATE TIME	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25
0130 0300 0430 0600	2.2	2.7	2.6 2.5	2.4 2.4 2.3	2.2 2.2 2.1	2.2	2.2	2.2	2.3	2.5	2.3 2.3 2.1	2.3	2.5	2.6
0730 0900 1030 1200 1330	2.2 2.3 2.3 2.4	2.7	2.6	2.3 2.4 2.5 2.5	2.1	2.2			2.3		2.1 2.2 2.3	2.3 2.4 2.4 2.5		
1500 1630 1800 1930 2100	2.4 2.5 2.5 2.6 2.6	2.8 2.7 2.6	2.5 2.6 2.5	2.6 2.7 2.5 2.3 2.2		2.3		2.2 2.3	2.4	2.5	2,3			
2230 2400	2.7	2.6	2.5	2.2	2.2	2.2	2.2	2.3	2.5	2.4	2.1	2.5	2.5	2.6
DATE	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8
TIME 0130 0300 0430 0600	2.7 2.7 2.6	2.4 2.5 2.6	2.6	2.5	2.5	2.5 2.5 2.4	2.4 2.4 2.3	2.4	2.4 2.4 2.3	2.3	2.3	2.4	2.6	2.6
0730 0900 1030 1200	2.6 2.5								2.3		2.3 2.4	2.5		
1330 1500 1630 1800 1930 2100	2.5 2.4		2.6 2.5		2.5		2.3		2.4	2.3		2.5		
2230 2400	2.4	2.6	2.5	2.5	2.4	2.4	2.4	2.4	2.3	2.2	2.4	2.6	2.6	2.6

LAKE MICHIGAN, STATION 30, 22 m continued.

DATE	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20	4-21	4-22
TIME	0.6		0 7	0 =	0 (
0130	2.6	2.6	2.7	2.7	2.6	2.6	2.7	2.8	2.9	2.9	2.9			
0300				2.7			2.6							
0430				2.6										
0600					2.6									
0730					2.5						2.9			
0900						2.6								
1030						2.7					End o			
1200		2.6				2.6	2.6	2.8			recor	d		
1330		2.7					2.7	2,9						
1500		/				2.6	2.7	2.,,						
1630						2.5	2.8							
1800						2.5	2.0							
						0 5								
1930						2.5								
2100						2.6								
2230					2.5	2.6								
2400	2.6	2.7	2.7	2.6	2.6	2.7	2.8	2.9	2.9	2.9				

LAKE MICHIGAN - STATION 30. Depth 60 m. Start 5 December 1963, 0900 CST; end 19 April 1964, 0805 CST. Instrument serial no. 134, film record 20,149. Initial cal. 0°C; final cal. -1.0°C.

DATE 12-5 12-6 12-7 12-8 12-9 12-10 12-11 12-12 12-13 12-14 12-15 12-16 12-17 12-18 TIME 0130 5.4 5.3 6.4 5.7 6.4 6.3 6.3 6.5 6.0 5.9 5.7 5.5 5.5 0300 5.3 5.8 6.6 4.8 6.5 6.5 6.2 6.4 5.9 5.4 6.7 6.6 5.8 5.7 0430 5.5 5.7 4.4 6.4 6.4 6.4 5.4 5.7 5,8 0600 6.8 4.4 6.3 5.5 5.0 5.9 5.9 0730 6.1 4.7 6.6 6.3 6.0 5.6 5.8 0900 6.9 4.9 5.8 4.9 6.4 6.4 6.2 5.9 5.5 5.4 1030 6.8 4.6 6.0 5.8 5.2 6.4 5.9 5.4 5.5 1200 6.7 5.4 5.7 6.1 5.7 6.0 6.0 5.6 5,4 1330 5.7 5.9 5.5 6.5 5.4 6.3 6.7 6.0 5.5 5.3 1500 6.1 5.4 5.8 6.2 6.7 6.3 6.3 6.1 5.8 5.5 5.6 1630 6.0 5.4 6.5 6.2 6.0 6.6 5.4 5.3 6.0 6.0 5.4 1800 5.9 6.3 5.7 6.9 5.8 6.0 6.4 5.3 5.4 1930 5.7 5.6 6.3 6.3 6.2 6.5 5.1 5.5 5.4 6.1 2100 5.9 5.7 5.7 6.4 6.3 6.0 5.3 5.5 5.5 2230 6.5 6.1 5.6 4.9 6.1 5.5 5.4 6.3 2400 5.7 6.3 5.3 4.8 6.0 6.6 6.5 6.0 5.9 5.7 5.5 5.4 5.5

DATE	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1
TIME														
0130	5.5	5.3	5.5	5.0	5.4	6.4	6.5	5.9	5.3	6.0	5.7	4.7	4.5 4.5	4.4
0300 0430	5.5 5.4	5.1 5.0	5.5 5.4			6.4	6.4	6.1 5.8	5.4 5.8		5.7 5.6		4.4	4.4 4.3
0600	5.4	3.0	5.3			0.5	5.8	5.8	6.0	6.0	5.0	4.7	4.4	4.5
0730	5.3	5.0	3.3				5.6	5.6	6.1	5.9		4.8	4.4	
0900	3.5	4.9	5.3	5.0	5.4	6.5	5.5	4.9			5.6		4.5	4.3
1030		4.9	5.2	5.1	5.5	6.6	5.2	4.7	6.1		5.5		4.6	4.2
1200	5.3	5.0	5.1		5.6		5.1	4.6	6.0	5.9	5.4		4.5	
1330	5.4	5.1					5.1	4.5		5.8	5.4	, ,	4.5	4.2
1500		5.0	5.1			6.6	5.2				5.5	4.8	4.5	4.3
1630		5.0	5.2 5.1	5.1 5.2	5.6	6.5 6.5	5.2	4.5				4.7	4.4	4.4 4.3
1800 1930		5.1	5.0	5.3	5.7	6.4	5.1	4.7		5.8	5.5	4.7		4.2
2100	5.4	5.4	3.0	5.4	6.0	0.4	5.1	5.0		5.7	5.3	4.5		7.2
2230	5.3	5.5		•••	6.3		5.4	5.1		5.6	4.8	4.4		4.2
2400	5.3	5.5	5.0	5.4	6.3	6.4	5.8	5.2	6.0	5.6	4.7	4.4	4.4	4.1
DATE	1-2	1-3	1-4	1-5	1-6_	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15
TIME 0130	4.2	4.7	4.3	4.6	4.3	4.3	4.2	4.2	4.2	4.0	4.1	4.0	4.0	4.2
0300	4.2	4.6	4.3	4.5	4.3	4.3	4.2	4.2	4.2	4.0	4.1	4.1	4.0	4.2
0430	4.5	4.5		4.4		4.2				4.1		4.2	4.2	
0600	4.3	4.4	4.3									4.3		
0730	4.4	4.4	4.2						4.2					
0900		4.5	4.3						4.1			4.3		
1030			4.4	4.4								4.4		
1200	, ,		4.9	4.3								4.5		
1330 1500	4.4		4.9 5.0						4.1		4.1	4.5		4.2
1630	4.7		5.2						4.0		4.0	4.4		4.3
1800	4.5		5.2						7.0		7.0	4.4		7.5
1930			5.1									4.3		
2100	4.5	4.5	4.9									4.2		
2230	4.7	4.4	4.7									4.1		
2400	4.7	4.3	4.6	4.3	4.3	4.2	4.2	4.2	4.0	4.1	4.0	4.0	4.2	4.3
DATE	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29
0130	4.3	4.3	4.0	4.0	4.1	4.1	4.0	4.0	4.1	4.2	4.1	3.9	3.8	3.8
0300											4.1			
0430											4.0			
0600														
0730														
0900		4.3										2.0		
1030 1200		4.2					4.0			4.2	4.0	3.9		
1330							4.1			4.1	3.9	3.0		
1500		4.2									5.7			
1630		4.1						4.0						
1800		4.1				4.1		4.1						
1930		4.0		4.0		4.0			4.1					
2100 2230				4.1					4.2					
2400	4.3	4.0	4.0	4.1	4.1	4.0	4.1	4.1	4.2	4.1	3.9	3.8	3.8	3.8
2-700	4.5	7.0	7.0	7.1	7.1	7.0	7.1	7.1	7.4		5.7	5.0	5.0	3.0

DATE TIME	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12
0130 0300	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.8	3.7	3.7	3.6	3.6	3.5
0430 0600 0730 0900 1030 1200 1330		3.9 3.8 3.8 3.7	3.9 3.8 3.8 3.9					3.9 3.8	3.8 3.7		3.7 3.6		3.6 3.5	
1500 1630 1800 1930 2100 2230		3.7 3.8 3.9												3.5 3.4
2400	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.8	3.7	3.7	3.6	3.6	3.5	3.4
DATE	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26
0130 0300 0430 0600 0730	3.5	3.6	3.6 3.6 3.5	3.5	3.0	3.5 3.5 3.6	3.6	3.7 3.7 3.8	3.6 3.6 3.6 3.5	3.5	3.4 3.4 3.5 3.6	3.6	3.5	3.6
0900 1030 1200 1330 1500 1630 1800 1930	3.5 3.6	3.5	3.3	3.5 3.3 3.2 3.0	3.1 3.2 3.2 3.1 3.2 3.3 3.4			3.8 3.7	3.5	3.5 3.4 3.5		3.6 3.5	3.5 3.6	3,6 3,5
2100 2230 2400 DATE	3.6 2-27	3.5 2-28	3.5 2-29	3.0 3-1	3.5 3-2	3.6 3-3	3.6 3-4	3.7 3.6 3.6 3-5	3.4 3.5 3.5 3-6	3.5 3.4 3.4	3.6 3-8	3.5 3-9	3.6 3-10	3,5 3 -11
TIME														
0130 0300 0430 0600 0730 0900	3.5	3.5 3.5 3.6	3.6	3.6	3.6	3.6	3.6	3.7 3.7 3.6 3.4 3.3 3.2	3.3	3.2 3.3 3.4 3.5 3.5	3.6	3.6	3.7 3.7 3.6	3.6 3.5
1030 1200									3.3 3.2	3.6				3.5 3.6
1330 1500 1630 1800 1930								3.2 3.3					3.6 3.5 3.5 3.6	3.6 3.5
2100 2230 2400	3.5	3.6	3.6	3.6	3.6	3.6	3.6	3.3	3.2	3.6	3.6	3.6 3.7	3.4 3.5 3.6	3.5 3.6 3.6

DATE	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25
TIME 0130	3.6	3.6	3.4	3.2	2.9	3.0	3.0	3.1	3.4	3.5	3.3	3.1	3.4	3.4
0300	3.0	3.0	3,4	3.2	2.9	3.0	3.0	3,1	3.4	3,5	3.3	3.1	3.4	3.4
0430					3.0				3.5		3.3			
0600											3.2			
0730				3.2							3.1	3.1		
0900				3.3				2 1			3.2	3.2	2 /	
1030 1200				3.3				3.1 3.2					3.4 3.3	
1330			3.4	3.4				3.3					3.3	
1500			3.5	3.4				3.4		3.5			3.3	
1630	3.6		3.5	3.5						3.4		3.2	3.4	
1800	3.5		3.4	3.5						3.4		3.3		
1930		3.6	3.3	3.4						3.3				3.4
2100 2230	3.5	3.5		3.1 3.0										3.3
2400	3.6	3.5	3.3	3.0	3.0	3.0	3.0	3.4	3.5	3.3	3.2	3.3	3.4	3.3
DATE	3-26	3-27	3-28	3-29	3-30	3-31	4-1.	4-2	4-3	4-4	4-5	4-6	4-7	4-8
TIME	2 2	2 1	2 2	2 2	2 2	2 1	2.0	2 2	2.2	2.2	2.1	2.0	2.2	2 2
0130 0300	3.3	3.1	3.3	3.3	3.3	3.1	3.0	3.3	3.3	3.2	3.1	3.2	3.3	3.3
0430	3.3													
0600	3.2	3.1				3.1				3.2				
0730	3.1	3.2				3.0				3.1				
0900														
1030 1200					3.3 3.2									
1330	3.1				3.2									
1500	3.0	3.2					3.0		3.3					
1630	3.1	3.3					3.1		3.2			3.2		
1800		3.2										3.3		
1930					2.0						3.1			
2100 2230					3.2 3.1		3.1				3.2			
2400	3.1	3.2	3.3	3.3	3.1	3.0	3.2	3.3	3.2	3.1	3.2	3.3	3.3	3.3
DATE	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17			4-20	4-21	4-22
TIME	4= 9	4-10	4-11	4-12	4-13	4-14	4-13	4-10	4-1/	4-18	4-19	4-20	4-21	4-22
0130	3.3	3.4	3.4	3.4	3.4	3.5	3.7	3.9	3.9	3.9	3.9			
0300														
0430						3.5	3.7							
0600 0730						3.6	3.6				3.9			
0900														
1030	3.3										End o			
1200	3.4					3.6					recor	d		
1330					3.4	3.7	3.6							
1500					3.5	3.7	3.7							
1630 1800						3.6 3.6	3.7 3.8							
1930						3.5	3.0							
2100						3.6								
2230						3.6								
2400	3.4	3.4	3.4	3.4	3.5	3.7	3.8	3.9	3.9	3.9				

LAKE MICHIGAN - STATION 30. Depth 120 m.
Start 5 December 1963, 0900 CST; end 19 April 1964, 0805 CST.
Instrument serial no. 241, film record 20,150. Initial cal. 0°C; final cal. 0.5°C.

DATE	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18
0130		3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.1
0300 0430														
0600 0730														
0900	3.0													
1030	3.0													
1200 1330	3.1													
1500													3.0	
1630									3.1				3.1	
1800 1930									3.0					
2100														
2230 2400	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.1	3.1
DATE	12-19	12-20	12-21	12-22					12-27					1-1
TIME 0130	3.1	3.9	3.9	3.9	3.9	3.9	4.0	4.0	2.0		/ 0	, ,		
0300	4.0	3.9	3.9	3.9	3.9	3.9	4.0	4.0	3.9	4.0	4.0	4.0	4.0	4.0
0430						4.0			3.9					
0600 0730						4.2			4.0					
0900	4.0					4.7								
1030	3.9					4.8								
1200 1330	4.0 3.9					4.9 5.0								
1500						4.1		4.0						
1630 1800						4.0		3.9						
1930														4.0
2100													4.0	3.9
2230 2400	3.9	3.9	3.9	3.9	3.9	4.0	4.0	3.9	4.0	4.0	4.0	4.0	3.9 3.9	3.9
DATE	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15
TIME 0130	3.8	3.8	3.8	3.8	3.7	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.3	3.2
0300	3,0		3.0	3,0	3.,	3.0	3.0	3,0	3.0	3.3	3.3	3.3	3,3	3.2
0430 0600											2 5			
0730											3.5 3.6			
0900					3.7									
1030 1200					3.6				3.6 3.5			3.5 3.3		
1330														
1500 1630														
1800				3.8									3.3	
1930				3.7		3.6							3.2	
2100 2230						3.5								
2400	3.8	3,8	3.8	3.7	3.6	3.5	3.6	3.6	3.5	3.5	3.6	3.3	3.2	3.2

DATE	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29
0130 0300 0430 0600 0730 0900 1030 1200 1330	3.2	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
1630 1800 1930 2100 2230		3.1												
2400	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
DATE	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12
0130 0300 0430 0600 0730 0900 1030	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
1200 1330 1500 1630 1800 1930 2100 2230	2.9													
2400	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
DATE TIME 0130 0300 0430	2-13	2.8	2-15	2.7	2.6	2.6	2-19	2.4	2.4	2.4	2-23	2.4	2-25	2.4
0600 0730 0900 1030 1200 1330		2.8 2.7									2.3			
1500 1630 1800 1930 2100 2230				2.7 2.6		2.6 2.5				2.4 2.3				
2400	2.8	2.7	2.7	2.6	2.6	2.5	2.5	2.4	2.4	2.3	2.4	2.4	2.4	2.4

DATE	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11
TIME 0130 0300	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	1.9	1.9	1.9	1.9	2.0	2.0
0430 0600 0730							2.4	2.1 2.0 2.0	1.9 1.8					
0900 1030 1200								1.9	1.8					
1330 1500 1630									1.9					
1800 1930 2100												1.9 2.0		
2230 2400	2.4	2.4	2.4	2.4	2.4	2.4	2.3	1.9	1.9	1.9	1.9	2.0	2.0	2.0
DATE	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25
0130 0300	1.9	1.9	1.9	1.8	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7
0430 0600 0730						1.7 1.6								1.7 1.6
0900 1030 1200			1.9 1.8											
1330 1500 1630														
1800 1930 2100					1.8 1.7							1.6 1.7	1.6 1.7	
2230 2400	1.9	1.9	1.8	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.6
DATE	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8
0130 0300 0430 0600 0730 0900 1030	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5
1200 1330 1500 1630 1800 1930 2100 2230														
2400	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1,5	1.5	1.5	1.5	1.5

LAKE MICHIGAN, STATION 30, 120 m continued.

DATE	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20	4-21	4-22
TIME														
0130	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6				
0300														
0430														
0600														
0730										1.6				
0900										End of				
1030										record				
1200										record	1			
1330														
1500							1.5							
1630							1.6							
1800														
1930														
2100														
2230														
2400	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6					

LAKE MICHIGAN - STATION 30. Depth 150 m.
Start 5 December 1963, 0900 CST; end 19 April 1964, 0805 CST.
Instrument serial no. 293, film record 20,151. Initial cal. 0°C; final cal. 0°C.

DATE 12-5 12-6 12-7 12-8 12-9 12-10 12-11 12-12 12-13 12-14 12-15 12-16 12-17 12-18 TIME 0130 3.5 3.5 3.5 3.5 3.5 3.5 3.8 3.5 3.6 3.5 3.5 3.6 3.7 0300 3.6 3.7 0430 3.6 0600 3.5 3.6 3.5 0730 3.6 3.6 3.5 3.5 3.6 0900 3.5 3.7 3.6 1030 3.6 3.6 1200 3.6 1330 3.6 3.6 3.5 1500 3.5 3.5 1630 3.5 1800 3.6 3.7 3.6 1930 3.5 3.6 3.8 2100 3.5 3.6 2230 3.7 2400 3.5 3.5 3.5 3.5 3.5 3.5 3.8 3.5 3.6 3.5 3.5 3.6 3.7 3.7

DATE	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1
0130	3.7	3.8	3.8	4.0	3.7	3.7	4.3	4.0	3.8	4.0	3.9	3.8	3.8	3.9
0300 0430		4.0			3.7 3.7	3.7 3.6	4.3 4.3	4.0 3.9		4.0				
0600 0730		4.0			3.6		4.2 4.1	4.0 4.1	3.8 3.9	3.9		3.8		3.9 3.8
0900 1030		4.1	3.8 4.0			3.6	4.0	4.1	3.9 4.0			3.9 4.0	2.0	3.8
1200	2 7		4.0		3.6	3.7	4.0	4.0	4.0			4.0	3.8 3.9	3,7
1330 1500	3.7 3.8	4.1	4.0	4.0 3.9	3.7	3.8 3.9	3.9 3.8	3.9 3.9						
1630 1800	3.8 3.7	3.9 4.0	3.9 3.9	3.8		4.0 4.0	3.8 3.9	3.8			3.9	4.0 3.9		3.7 3.8
1930 2100	3.9 3.7	4.2 4.0	4.0			4.2	4.0				3.8			3.9 3.8
2230 2400	3.7	3.8	4.0	3.8 3.7	3.7	3.8	4.0	3.8	4.0	3.9	3.8	3.9 3.8	3.9	3.7 3.8
DATE	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15
TIME 0130	3.8	3.7	3.7	3.8	3.4	3.4	3.5	3,5	3.5	3.4	3.3	3.3	3.4	3.4
0300 0430	3.8 3.7		3.6 3.5	3.7	3.4				3.5 3.6			•••	3.3	3.5
0600 0730	3.,		3.3	3.7	3.5	3.4			3.0			3.3	3.2	3.0
0900	3.7			3.0		3.5						3.5 3.5	3.3 3.5	
1030 1200	3.8	3.7 3.8	3.5	3.6					3.6 3.5			3.6	3.5 3.6	
1330 1500		3.8 3.7	3.6 3.7	3.5					3.5 3.4			3.6 3.7	3.6	
1630 1800		3.7 3.8		3.5						3.4		3.7	3.5	3.6
1930 2100			3.7 3.9	3.4	3.5					3.3		3.6 3.6	3.5	3.5
2230 2400	3.8 3.7	3.8	3.9 3.8	3.4	3.4	3.5	3.5	3.5	3.4	3.3	3.3	3.5	3.4	3.5
DATE	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29
TIME 0130	3.5	3.4	3.1	3.1	3.2	3.1	3.2	3,3	3.3	3.2	3.1	3.0	3.0	3.0
0300 0430	3.5 3.4	3.4				3.1 3.2					3.1			
0600 0730	314	3.2	3.1			3.2					3.0			
0900			3.0				3.2							
1030 1200							3.3							
1330 1500									3.3					
1630 1800		3.2 3.1	3.0 3.1		3.2 3.1				3.2	3.2				
1930 2100										3.1				
2230														

DATE	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12
TIME														
0130	3.0	3.0	3.0	3.1	3.1	3.1	3.0	3.0	3.0	2.9	2.9	2.9	2.9	3.0
0300									3.0					
0430									2.9					
0600														3.0
0730													2.9	2.9
0900													3.0	2.9
1030														3.0
1200						3.1								
1330		3.0			3.1	3.0								3.0
1500		2.9		3.1	3.0									2.9
1630				3.0										
1800				3.0										
1930		2.9	3.0	3.1										
2100		3.0	3.1											
2230			0.1	0.1			2.0			0.0				
2400	3.0	3.0	3.1	3.1	3.0	3.0	3.0	3.0	2.9	2.9	2.9	2.9	3.0	2.9
DATE	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26
TIME	0.0	0.0	0.0	0.0	0.7	0 7	0 7	0.7	0 7	0 7	0 7	0.6	0.6	0.6
0130 0300	2.9	2.9	2.9	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.6	2.6
		2.9			2.6									
0430		2.8			2.6									
0600 0730			2.9											
0900			2.8											
1030			2.0							2.7				
1200				2.8						2.6				
1330				2.7						2.0				
1500				2.1	2.6				2.7					
1630					2.7				2.8					
1800					2.7				2.0	2.6	2.7			2,6
1930										2.7	2.6			2.5
2100									2.8	,	2.0			2.5
2230									2.7					
2400	2.9	2.8	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.6	2.6	2.5
DATE	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11
0130	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.3	2.3	2.5	2.5	2.6	2.6
0300														
0430												2.5		
0600								2.6				2.6		
0730								2.5						
0900								2.4		2.3				
1030								2.3		2.4				
1200										2.4				
1330			2.5					2.3		2.5				
1500			2.6					2.4						
1630								2.3						
1800														
1930														
2100								2.3						
2230								2.2						
2400	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.2	2.3	2.5	2.5	2.6	2.6	2.6

DATE	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25
TIME	0.6													
0130 0300	2.6	2.7	2.7	2.6	2.6	2.4	2.1	2.2	2.4	2.3	2.3	2.2	2.2	2.3
0430					2.5			2.2						
0600	2.6				2.4			2.3	2.4					
0730	2.7							2.4	2.3					
0900														
1030														
1200											2.3			
1330 1500						2.4					2.2			
1630						2.3							2.2	
1800						2.1							2.3	
1930							2.1						2.5	
2100							2.2							
2230														
2400	2.7	2.7	2.7	2.6	2.4	2.1	2.2	2.4	2.3	2.3	2.2	2.2	2.3	2.3
DATE	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8
0130	2.3	2.2	2.2	2.2	2.3	2.2	2.0	2.1	2.3	2.2	2.2	2.2	2.1	2.2
0300					2.3		2,0		2.5		2.1	2.2	2.1	2.2
0430					2.2									
0600														
0730														
0900 1030						2.2							2.1	
1200						2.1	2.0				2.1		2.2	
1330							2.1				2.2			
1500											2.2			
1630	2.3													
1800	2.1			2.2				2.1				2.2		2.2
1930	2.0			2.3				2.2				2.1		2.1
2100								2.3	2.3				2.2	
2230 2400	2.0	2.2	2.2	2.3	2.2	2.1	2.1	2.3	2.2	2.2	2.2	2.1	2.3	2.1
DATE	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20	4-21	
TIME	4-3	4-10	4-11	4-12	4-13	4-14	4-13	4-10	4-1/	4-10	4-13	4-20	4-21	4-22
0130	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.3	2.5	2.5			
0300					2.1		2.1							
0430 0600					2.0		2.2							
0730					2.0									
0900					2.1				2.3					
1030							2.2		2.4					
1200							2.1		2.5		2.5			
1330					2.1						Remov	ed fro	m	
1500					2.0	2.1	2 1					at 12		
1630 1800						2.2	2.1							
1930					2.0		2.2							
2100					2.1		2.3							
2230						2.2								
2400	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.3	2,5	2.5				

LAKE MICHIGAN - STATION 37. Depth 10 m.
Start 2 December 1963, 0900 CST; end 20 April 1964, 1705 CST.
Instrument serial no. 358; film record 20,160. Initial cal. 0°C; final cal. 0.5°C.

DATE	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15
TIME 0130		5.7	5.6	5.3	5.2	5.3	5.5	5.4	4.8	5.9	6.0	6.0	5.5	5.4
0300							5.4	5.3	4.9	6.0		6.0		
0430							5.4	5.2	5.0			5.9	5.5	
0600					5.2		5.3		5.1	6.0		5.8	5.4	
0730					5.1	5.3	5.4		5.3	5.9		5.7		5.4
0900	5.4					5.4	5.5	5.2	5.4	5.7				5.3
1030	5.5		5.6			5.5		5.1	5.4	5.7				
1200	5.6		5.5						5.5	5.9				
1330 1500	5.6 5.5		5.4					5.1	5.5	6.0		5,7		
1630	5.4			5.3				5.0	5.7	0.0		5.6		
1800	5.4		5.4	5.2				4.8	5.7			3.0		5.3
1930	5.5		5.3	3.2					3.7					5.2
2100	5.6				5.1			4.8	5.7			5.6		
2230	5.7	5.7			5.2			4.9	5.8			5.5		
2400	5.7	5.6	5.3	5.2	5.3	5.5	5.5	4.8	5.9	6.0	6.0	5.5	5.4	5.2
DATE	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
TIME														
0130	5.2	5.1	5.1	4.3	4.8	4.4	4.7	4.7	4.2	3.9	4.3	3.3	3.9	4.0
0300				4.4	4.7	4.6			4.3	4.2	4.3		3.9	
0430	F 0			4.7 4.8	4.6	4.6			3.9 3.8	4.1 4.0	4.2	3.3 3.5	3.7	
0600 0730	5.2 5.1		5.1	4.0		4.5			3.9	4.0	4.1 3.8	3.6		
0900	2.1		5.0			4.5			4.0	4.2	3.6	3.7	3.7	
1030									4.3	4.3	3.3	3.8	3.8	
1200			5.0		4.6				4.2	4.5	3.2	4.0	3.9	
1330			4.9		4.4	4.5			4.0		3.1	3.9		
1500			4.8			4.6			3.9		3.1	3.8	3.9	
1630			4.3		4.4			4.7	3.8		3.2	3.7	4.0	
1800					4.3		4.7	4.6	3.7	4.5	3.3	3.7		4.0
1930		5.1			4.2		4.6	4.4	3.7	4.4		3.6		3.9
2100		5.0			4.1		4.5	4.1	4.1			3.6		3.8
2230					4.0		4.5	4.1	4.1	4.4		3.7		3.7
2400	5.1	5.0	4.3	4.8	4.1	4.6	4.6	3.9	3.7	4.3	3.3	3.8	4.0	3.7
DATE	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
0130	3.7	2.8	2.9	2.6	2.4	2.8	2.9	2.9	2.2	2.9	2.9	2.8	2.7	2.6
0300				2.5							,			2.0
0430		2.8		2.5					2.2					
0600		2.5	2.9	2.4		2.8			2.3		2.9			2.6
0730		2.1	3.0	2.3	2.4	2.9			2.7		2.8			2.5
0900	3.7		3.1		2.5				2.8					2.1
1030	3.6		3.1		2.6									1.9
1200	3.3		3.0	0.6	0.6							2.8		2.0
1330 1500	3.2	2.1		2.3	2.6 2.7							2.7	0.7	2.2
1630	3.3 3.4	2.0	3.0	2.2	2.7				2.8		2.8		2.7 2.8	
1800	3.5		2.9		2.8				2.9		2.7		4.0	2.2
1930	3.6	2.0	2.8	2.2	2.0			2.9	2.0		2.,		2.8	2.3
2100	3.6	2.1	2.7	2.3				2.8					2.7	2.3
2230	3.4	2.6	2.6	2.3				2.4						2.4
2400	2.9	2.9	2.6	2.4	2.8	2.9	2.9	2.2	2.9	2.9	2.7	2.7	2.7	2.5

DATE	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1 26
TIME	1-13	1-14	1-13	1-10	1-1/	1-10	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26
0130	2.5	2.3	2.5	2.4	2.2	2.3	2.1	2.0	2.2	2.3	2.0	2.3	2.3	2.3
0300		2.2	2.4		2.1	2.2		2.0						2.3
0430 0600			2.4	2.4	2.0	2.0		2.1						2.2
0730			2.1	2.3							2.0	2 2		
0900		2.2	2.1					2.1		2.3	2.1	2.3		
1030		2.3	2.2		2.0			2.2		2.2		2.2	2.3	
1200			1.6	2.3	2.2				2.2				2.2	2.2
1330			1.8	2.4	2.3				2.3		2.1			2.1
1500		2.3	1.9	2.3							2.2			
1630 1800		2.4	2.0							2.2		2.2		
1930		2.5	2.1			2.0				2.1	2.2	2.3	2.2	
2100	2.5		2.3			2.0				2.1	2.3		2.3	
2230	2.4		2.3							2.0				
2400	2.4	2.5	2.4	2.3	2.3	2.1	2.1	2.2	2.3	2.0	2.3	2.3	2.3	2.1
DATE	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
TIME 0130	2.1	2.1	2.1	2.0	2.0	2.0	0.0	1.0						
0300	2.1	2.1	1.9	2.0	2.0	2.0	2.0	1.8	1.7	1.6	1.8	1.8	1.8	1.7
0430										1.6				
0600				2.0	2.0					1.7				
0730	2.1			1.9	1.9									
0900 1030	2.0	2.1	1.9		1.9				1 7	1.7			1.8	
1200		2.2	2.0		2.0		2.0		1.7 1.6	1.8			1.7	1.7 1.6
1330	2.0	2.2	2.0		2.0		1.9		1.0					1.0
1500	2.1													1.6
1630		2.2												1.7
1800		2.1	2.0											
1930 2100			1.9	1.9			1.9 1.8	1.8 1.7						
2230			1.9	2.0			1.0	1./						
2400	2.1	2.1	2.0	2.0	2.0	2.0	1.8	1.7	1.6	1.8	1.8	1.8	1.7	1.7
DATE	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23
TIME 0130	1.6	1.7	1.6	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.1
0300	1.0	±•, /	1.0	1.,	1.,	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.2
0430					1.7								1.4	1.4
0600		1.7		1.7	1.6			1.6					1.6	1.4
0730		1.6		1.6				1.5						1.5
0900 1030			1.6					1.5					1.6	1.4
1200			1.7					1.6			1.6		1.6 1.5	
1330			4.7					1.0			1.5		1.4	1.4
1500		1.6		1.6							1.6		1.3	1.5
1630		1.7		1.7									1.4	
1800	1.6												1.1	
1930 2100	1.7											1 6	1.0	
2230												1.6 1.5		
2400	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.0	1.5

DATE	2-24	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8
TIME 0130 0300	1.5	1.5	1.5	1,0	0.8	0.9	0.9	1.0	1.4	1.5	1.6	1.5	1.4	1.3
0430 0600			1.4	1.0 1.1	0.8		1.0			1.5		1.5	1.4	
0730 0900							1.3	1.0		1.6	1.6	1.4	1.3	1.3
1030 1200 1330			1.3 1.2			0.9		1.1	1.4		1.5	1.4	1.3 1.2	1.2
1500 1630	1.5 1.6		1.2	1.1		0.0	1.3	1.1 1.2				1.5	1.2	1.2
1800 1930 2100	1.6 1.5		1.2 1.1 1.0	1.0 1.0 0.8		0.8	1.2 1.2 1.1	1.2 1.3				1.5 1.4	1.3	1.2
2230 2400	1.5	1.5	1.0	0.8	0.9	0.9	1.0 1.0	1.3	1.5	1.6	1.5	1.4	1.3	1.2
DATE	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
TIME 0130 0300	1.2	1.2	1.2	1.1 1.0	1.1	1.2	1.2 1.3	1.5	1.4	1.2	1.0	1.0	0.8	1.0
0430 0600 0730			1.2	0.9	1.1 1.2		1.3		1.4 1.3	1.2 1.1				1.0 1.1
0900 1030 1200	1.2 1.1		1.1	0.8			1.4					1.0	0.8 0.9	
1330 1500 1630	1.1						1.4	1.5					0.9 1.0	1.1 1.2
1800 1930 2100				0.9 1.0			1.5		1.3 1.2			0.9		
2230 2400	1.2	1.2	1.1	1.0 1.1	1.2	1.2	1,5	1.4	1.2	1.1 1.0	1.0	0.8	1.0	1.2
DATE	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5
TIME 0130 0300	1.1	1.1	1.0	0.8	0.5	0.6 0.6	0.5	0.6	0.5	0.5	0.5	0.6	0.6	0.7 0.8
0430 0600 0730			1.0 0.9	0.8		0.5		0.6				0.6		0.8
0900 1030 1200			0.9	0.6 0.7								0.5		0.7
1330 1500		1.1	J. U		0.5								0.6	
1630 1800 1930		1.0		0.7 0.6	0.6	0.5 0.6							0.7	0.7
2100 2230 2400	1.1	1.0	0.8	0.6 0.5	0.6	0.6 0.5 0.5	0.5 0.6 0.6	0.5	0.5	0.5	0.5	0.5	0.7	1.1 1.4 1.4

LAKE MICHIGAN, STATION 37, 10 m continued.

DATE	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19
TIME														
0130	1.4	0.8	0.7	0.6	0.6	0.7	0.8	0.8	1.5	1.5	1.5	1.5	1.5	
0300									1.5					
0430		0.8							1.4					
0600	1.4	0.9		0.6			0.8	0.8						
0730	1.3		0.7	0.5			0.7	0.9						
0900	1.2		0.6					1.0	1.4					
1030	1.1	0.9			0.6			1.0	1.5					
1200	1.0	1.0			0.7			1.1					1.5	
1330	0.9	1.1						1.3					72 . 1	
1500		1.3		0.5			0.7	1.4					End	
1630		1.4		0.6			0.8	1.5						
1800		1.2												
1930		0.9												
2100		0.8												
2230	0.9	0.7												
2400	0.8	0.7	0.6	0.6	0.7	0.7	0.8	1.5	1.5	1.5	1.5	1.5		

LAKE MICHIGAN - STATION 37. Depth 15 m. Start 2 December 1963, 0900 CST; end 20 April 1964, 1705 CST. Instrument serial no. 287, film record 20,161. Initial cal. 0°C; final cal. -0.6°C.

DATE 12-2 12-3 12-4 12-5 12-6 12-7 12-8 12-9 12-10 12-11 12-12 12-13 12-14 12-15 TIME 0130 5.5 5.4 5.1 5.0 5.0 5.1 5.0 4.5 5.8 5.9 5.9 5.4 5.3 0300 4.6 5.9 0430 4.6 5.8 5.0 5.4 0600 5.1 4.8 5.8 0730 5.0 5.1 5.0 5.0 5.4 5.3 5.3 0900 5.2 5.4 4.9 5.0 5.5 5.2 1030 5.3 5.1 5.5 1200 5.5 5.3 5.6 5.8 5.2 1330 5.4 5.2 5.1 5.8 5.7 1500 4.9 5.3 5.9 5.1 1630 4.6 5.5 5.7 5.2 5.2 4.5 5.6 1800 1930 5.3 5.1 5.5 5.1 5.6 2100 5.4 5.6 5.0 5.5 2230 5.5 5.7 2400 5.5 5.4 5.1 5.0 5.0 5.1 5.1 4.5 5.8 5.9 5.9 5.5 5.3 5.0

DATE	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
0130	5.0	5.0	4.9	4.2	4.4	4.2	4.2	4.3	3.9	3.8	4.0	3.1	3.3	3.4
0300 0430				4.4					3.7 3.4	3.7 3.6	3.9 3.7		3.2	
0600									3.2	3.7	3.3	3.1		
0730					4.4	4.2			3.3	3.9	3.2	3.2		
0900					4.3	4.1			3.8	4.0	3.1	3.3		
1030 1200			4.9 4.6		4.3				4.0 3.8	4.1	3.0	3.5 3.6	3.2 3.3	
1330			4.3		4.2			4.3	3.6			3.6	3.3	
1500			4.0		4.1			4.2	3.5			3.5		
1630						4.1		4.2	3.4			3.4		3.4
1800					4.1	4.2		4.1	3.2			3.3		3.3
1930 2100		5.0			4.0			4.0 3.7	3.8 4.0		3.0			3.2
2230		4.9			4.0			3.6	3.5	4.1	3.1			
2400	5.0	4.9	4.0	4.4	4.1	4.2	4.2	3.9	3.7	4.0	3.1	3.3	3.3	3.2
DATE	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
TIME 0130	3.2	3.0	2.9	2.4	2.5	3.0	3.0	3.0	2.9	2.9	2.9	2.8	2.7	2.1
0300			2.9		2.5							2.8		
0430			3.0	2.4	2.6							2.7	2.7	
0600 0730	3.2	3.0	3.1	2.3	2.7								2.6	
0900	3.1	2.9												2.1
1030		2.5			2.7						2.9			2.2
1200		2.2	3.1		2.8						2.8			
1330	2.1	2.1	3.0					3.0 2.9						
1500 1630	3.1	2.1 2.4	2.9	2.3				2.4					2.6	
1800	3.2	2.6	2.7	2.4	2.8			2.3					2.5	
1930	3.2	2.8	2.6		2.9			2.3					2.4	
2100	3.1	2.9	2.5	0 /	0.0			2.4					2.1	
2230 2400	3.0 3.0	2.9	2.4	2.4	2.9 3.0	3.0	3.0	2.6 2.9	2.9	2.9	2.8	2.7	2.1	2.2
DATE	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26
TIME														
0130 0300	2.4	2.5	2.3	2.3	2.4	2.2	2.2	2.3	2.4	2.4	2.4	2.4	2.3	2.2
0430										2.3				
0600		2.5												
0730		2.6			2.4									
0900					2.3			2.3						
1030 1200					2.2			2.4				2.4		
1330							2.2					2.5		
1500							2.1							
1630										2.3			2.3	
1800	2.4			2.3						2.4			2.2	
1930 2100	2.5	2.6		2.4										
2230		2.7												
2400	2.5	2.7	2.3	2.4	2.2	2.2	2.1	2.4	2.4	2.4	2.4	2.5	2.2	2.2

DATE	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
0130 0300	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.3	2.0	2.2	2.2	2.2	2,2	2.1
0430 0600 0730 0900			2.2 2.1					2.3 2.2						2.1 2.0
1030 1200 1330				2.1 2.2				2.2 2.1	2.0 2.1					
1500 1630 1800 1930 2100			2.1					2.1 2.0	2.1 2.2				2.2	2.0 2.1
2230 2400	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.0	2.2	2.2	2.2	2.2	2.1	2.1
DATE	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23
TIME 0130 0300 0430	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.2 2.2 2.2	2.2 2.1 1.9	1.9
0600 0730			2.1									2.1	1.8	
0900 1030 1200	2.1							2.0 2.1				2.1		
1330 1500									2.1					
1630 1800 1930		2.0 2.1							2.2	2.2 2.1	2.1 2.2			
2100 2230 2400	2.0	2.1	2.0	2.0	2.0	2,0	2.0	2.1	2,2	2.1	2.2	2.2	1.0	1.9
DATE	2-24	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	1.9 3-7	3-8
TIME 0130	1.9	1.8	1.6	1.4	1.4	1.4	1.6	1.8	2.3	2.4	2.3	2.2	2.1	1.9
0300 0430 0600 0730		1.8 1.7	1.6 1.5			1.4 1.5			2.3	2.4		2.2	2.1 2.0	1.9 1.8
0900 1030 1200 1330	1.9 1.8					1.5 1.6		1.8 1.9 1.9	2.4		2.3 2.2	2.1	2.0 1.9	
1500 1630 1800 1930 2100		1.7 1.6					1.6 1.7 1.8	2.0 2.1 2.1						1.8 1.7
2230 2400	1.8	1.6	1.5 1.4	1.4	1.4	1.6	1.8	2.2	2.4	2.3	2.2	2.1	1.9	1.7

			•		,									
DATE	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
TIME 0130 0300	1.7	1.5	1.5	1.6	1.8	1.9	1.9	1.9	1.8	1.7	1.7	1.6	1.6	1.6
0430 0600 0730 0900 1030 1200 1330	1.7 1.6 1.5		1.5	1.6 1.7	1.8 1.9		1.9	1.9	1.8 1.7		1.7 1.6			
1630 1800 1930 2100 2230				1.7										1.6 1.5
2400	1.5	1.5	1.6	1.8	1.9	1.9	1.8	1.8	1.7	1.7	1.6	1.6	1.6	1.5
DATE	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5
TIME 0130 0300 0430	1.5 1.6 1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5 1.4	1.5	1.6	1.5	1.5
0600 0730 0900 1030	1.5									1.4 1.5	1.5 1.4 1.4	1.6	1.5 1.6 1.7	
1200 1330 1500 1630 1800			1.5								1.5		1.7 1.6 1.6 1.5	
1930 2100 2230			1.6								1.6			
2400	1.5	1.5	1.6	15.	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.5	1.5	1.5
DATE TIME	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19
0130 0300 0430	1.6	1.7	1.8	1.9 1.8	1.7	2.1	2.1	2.4	2.5	2.6	2.6	2.6		
0600 0730		1.7 1.8	1.8 1.9		1.7 1.8 2.0		2.1		2.5			2.6		
0900 1030 1200 1330 1500	1.6			1.8 1.7	2.1		2.2 2.3	2.4 2.5	2.6			Pulled at 07		
1630 1800 1930 2100							2.3 2.4							
2230 2400	1.7	1.8	1.9	1.7	2.1	2.1	2.4	2.5	2.6	2.6	2.6			

LAKE MICHIGAN - STATION 37. Depth 22 m. Start 2 December 1963, 0900 CST; end 20 April 1964, 1705 CST. Instrument serial no. 294, film record 20,162. Initial cal. 0°C; final cal. 0°C.

DATE	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15
0130 0300		5.5 5.6	5.5 5.5	5.3	5.1	5.0	5.0	5.0	5.1	5.2	5,2	5.0	4.8 4.7	5.2
0430 0600		5.5 5.6	5.4										4.8	5.2
0730		5.7	5.4						5.1				4.9 4.8	5.3
0900	5.1	5.7	5.3						5.2				4.0	
1030	5.1	5.6		5.3										
1200	5.2			5.2				5.0					4.8	5.3
1330 1500	5.1	5.6 5.5		5.2				5.1					4.9	5.4
1630		3.3		5.1									4.9	5.4 5.5
1800				J.1							5.2		5.0	5.6
1930	5.1										5.1		5.0	5.7
2100	5.2											5.0	5.1	5.8
2230 2400	5.3		F 2	- 1		- 0			- 0	- 0		4.9	5.1	5.9
	5.4	5.5	5.3	5.1	5.1	5.0	5.0	5.1	5.2	5.2	5.1	4.9	5.2	5.9
DATE	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
0130 0300	5.9	5.9	6.0	5.9	5.6	5.3	5.2	5.1	5.0	5.0	5.1	5.0	5.0	4.2 4.3
0430	5.9	5.9											5.0	4.4
0600	6.0	6.0			5.6	5.3							4.9	4.6
0730	5.9			5.9	5.5	5.2							4.8	4.8
0900 1030	5.8 5.6			5.8 5.8	5.5 5.4								4.7 4.6	4.9
1200	5.4			5.7	3.4								4.4	
1330	5.4			•••							5.1		4.2	
1500	5.5			5.7							5.0		4.1	
1630	5.6			5.6	5.4					5.0			4.0	
1800	5.7				5.3			5.1 5.0		5.1			4.1	
1930 2100	5.8		6.0					5.0						
2230			5.9											
2400	5.8	6.0	5.9	5.6	5.3	5.2	5.2	5.0	5.0	5.1	5.0	5.0	4.1	4.9
DATE	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
TIME 0130	4.9	4.6	4.0	4.3	4.3	4.3	4.2	3.5	3.4	3.7	4.0	2.9	3.0	3.1
0300	4.5	4.0	4.0	4.5	4.5	4.2	4.2	3.6	3.2	3.9	4.0	2.9	3.0	3.1
0430			4.1		4.3	4.2		3.7	3.1	3.9	3.9			
0600		4.6	4.2		4.2	4.1	4.2	3.9		4.0	3.9		3.0	
0730		4.5	4.3				4.1	4.0	3.1		3.8		3.1	3.1
0900		4.4	4.4		, ,			3.8	3.3				2 1	3.2
1030 1200		4.3	4.5 4.6		4.2			3.6 3.4	3.4 3.6		3.8		3.1	
1330		4.2	4.5		4.1	4.1		3.3	3.9		3.7		3.3	
1500	4.9	4.2	4.4		4.2	4.2			3.6		3.7		3.5	3.2
1630	4.8	4.1	4.3		4.2		4.1	3.3	3.2		3.5		3.6	3.1
1800	4.7		4.2		4.3		4.0	4.0	3.2		3.4		3.5	
1930 2100	4.7	4.1	4.2					4.1 3.8	3.2 3.9		3.2		3.4	
2230	4.6	4.0	4.3					3.6	3.7		2.9		3.2	
2400	4.6	4.0	4.3	4.3	4.3	4.2	4.0	3.5	3.5	4.0	2.9	2.9	3.2	3.1

LAKE MICHIGAN, STATION 37, 22 m continued.

DATE	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26
0130 0300 0430	3.1 3.1 3.2	3.5 3.5 3.6	3.8	3.2	3.1	3.1	2.9	2.8	2.0	2.0 2.1 2.1	2.5	2.8	2,9	2.9
0600 0730 0900	3.2	3.6	2.0	2.2	3.1 3.2 3.2	3.1 3.0	2.9	2.8		2.2	2.5 2.6	2.8 2.9		
1030 1200	3.3	3.7 3.8	3.8 3.7 3.6	3.2 3.1 3.1	3.1 3.1	3.0	3.0	2.7 2.6 2.6						
1330 1500 1630	3.4 3.5		3.5 3.4 3.4	3.0	3.0	2.9 2.8 2.8	3.0	2.5 2.5 2.4		2.2	2.6 2.7 2.7			
1800 1930 2100			3.3	3.1	3.0 3.1	2.7 2.7 2.9	2.9	2.4 2.3 2.2		2.3 2.4	2.8			
2230 2400	3.5	3.8	3.3	3.1	3.1	2.9	2.9	2.1	2.0	2.5	2.8	2.9	2.9	2.9
DATE	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
0130 0300	2.9	2.8	2.8	2.8	2.8	2.9	2.8	2.7	2.7	2.6	2.5	2.2	2.3	2.4 2.4
0430 0600 0730					2.8						2.5 2.4 2.4	2.2		2.3
0900 1030 1200		2.8					2.8		2.7		2.3 2.3 2.0		2.3	2.3 2.4
1330 1500 1630		2.7 2.6 2.5				2.9 2.8								2.4
1800 1930	2.9	2.5 2.6								2.6	2.0 2.1			2.5
2100 2230	2.8	2.6 2.7								2.5				2.5
2400 DATE	2.8 2-10	2.7 2-11	2.8 2-12	2.8 2-13	2.9 2-14	2.8	2.7 2-16	2.7	2.6	2.5	2.1	2.3	2.4	2.6
TIME						2-15		2-17	2-18	2-19	2-20	2-21	2-22	2-23
0130 0300 0430	2.6	2.7	2.3	2.2	2.0	2.1	2.0	2.0	2.1	2.2	2.3	2.3	2.2	2.1
0600 0730	2.7		2.3 2.2		• •					2.2 2.3				
0900 1030 1200				2.2 2.3	2.0 2.1	2.1		2.0				2.3		
1330 1500 1630 1800		2.7 2.6		2.3 2.2 2.2	2.1 2.0	2.0		2.1						
1930 2100 2230		2.5 2.4 2.3		2.1 2.1 2.0	2.0 2.0									2.1
2400	2.7	2.3	2.2	2.0	2.1	2.0	2.0	2.1	2.1	2.3	2.3	2.2	2.2	2.2

DATE	2-24	2-25	2-26	2-27	2-28	2-29	2 1	2 2	2.2	2 /	0.5			
TIME	2-24	2-23	2-20	2-21	2-20	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8
0130	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0
0300														
0430				2.1										
0600 0730				2.0										
0900								2.0	2.1					
1030								2.1	2.0					
1200		2.2												
1330		2.1												
1500 1630														
1800														
1930														
2100														
2230														
2400	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0
DATE	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
TIME 0130	2.0	2.0	2.0	1.9	2.0	2.0	1.0	1.9	2.0	2.0				
0300	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9
0430						2.0								
0600				1.9		1.9		1.9	2.0					1.9
0730				2.0				2.0	1.9					1.8
0900 1030						1.9 1.8								1.8
1200						1.8								1.7
1330						1.7								
1500														
1630									1.9					
1800 1930									2.0					
2100						1.7						2.0 1.9		
2230						1.8						1.9		
2400	2.0	2.0	2.0	2.0	2.0	1.8	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.7
DATE	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5
TIME														
0130 0300	1.7	1.8	1.9	2.0	1.9	1.9	1.9	1.8	1.6	1.6	1.6	1.6	1.6	1.9
0430														
0600														
0730				2.0										
0900				1.9				1.8					1.6	
1030								1.7					1.7	
1200 1330	1.7													
1500	1.8													
1630							1.9						1.7	
1800		1.8					1.8						1.8	
1930		1.9	1.9											
2100 2230			2.0											
2400	1.8	1.9	2.0	1.9	1.9	1.9	1.8	1.7	1.6	1.6	1,6	1.6	1.8	1.9
		,						-• /			0	1.0	1.0	4.0

LAKE MICHIGAN, STATION 37, 22 m continued.

DATE	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19
TIME 0130 0300 0430	1.9	1.9	1.9	1.9	1.9	1.1	1.0	1.0	1.0	1.1	1.2	1.3 1.3 1.4	1.5 1.5 1.4	1.7
0600 0730 0900 1030				1.9 2.0	1.9 1.8 1.7	1.1 1.0						1.5	1.4	1.7 1.8
1200 1330 1500					1.6 1.5 1.4				1.0 1.1			1.6	1.5 1.6 1.7	
1630 1800 1930			1.9	2.0	1.3 1.2 1.1					1.1 1.2		1.5		
2100 2230			1.8	1.9			0.9	1.0		1.0	1.0			1.0
2400 DATE	1.9 4-21	1.9 4-21	1.8 4-22	1.9 4-23	1.1 4-24	1.0 4-25	1.0 4-26	1.0 4-27	1.1 4-28	1.2 4-29	1.2 4-30	1.5 5-1	1.7 5-2	1.8 5 <u>-3</u>
TIME 0130														
0300 0430 0600 0730 0900 1030 1200 1330	1.8													

LAKE MICHIGAN - STATION 37. Depth 30 m. Start 2 December 1963, 0900 CST; end 20 April 1964, 1705 CST. Instrument serial no. 150, film record 20,163. Initial cal. 0°C; final cal. 0°C.

DATE	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15
TIME														
0130		4.9	4.8	4.4	4.2	4.2	4.3	4.3	4.0	5.0	5.2	5.2	5.0	4.9
0300 0430									, ,					
0600						4.2			4.0			5.2		
0730						4.3			4.2			5.1		
0900				4.4		4.5		4.3	4.2					4.9
1030	4.2		4.8	4.3				4.2	4.3					4.8
1200			4.7					4.1	4.4					4.0
1330			4.6						4.5	5.0				
1500		4.9	4.5					4.1	4.6	5.1				
1630		4.8						4.0	4.6	5.2		5.1		
1800				4.3					4.7			5.0		4.8
1930	4.2			4.2					4.9				5.0	4.7
2100	4.4												4.9	
2230	4.6		4.5						4.9					
2400	4.8	4.8	4.4	4.2	4.2	4.3	4.3	4.0	5.0	5.2	5.2	5.0	4.9	4.7
DATE	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
TIME	, -	, ,	, ,	0.0										
0130	4.7	4.6	4.2	3.2	3.8	3.5	3.5	3.5	3.0	3.0	3.0	2.5	2.9	2.9
0300 0430	4.7	4.6 4.5		3.7 3.8								۰.		
0600	4.6	4.5		3.0							3.0	2.5		
0730	4.0										2.8	2.7		
0900		4.5									2.7	2.8		
1030		4.4	4.2								2.5	2.9		
1200		4.4	3.9						3.0		2.5	2.,,		
1330		4.3	3.8		3.8				2.9					
1500			3.1		3.7									
1630					3.6			3.5	2.9					
1800		4.3			3.5			3.4	3.0					
1930		4.2			3.4			3.1						
2100					3.2			3.0						
2230 2400	4.6	4.2	3.1	3.8	3.2	3.5	3.5	3.0	3.0	3.0	2.5	2.9	2.9	2.9
DATE	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
0130	2.9	2.8	2.6	2.0	1.9	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0
0300	2.,,	2.0	2.0	2.0		2.0							2 . 1	2.0
0430			2.6											
0600			2.5	2.0										2.0
0730				1.9	1.9									1.9
0900					2.0									1.3
1030	2.9													1.2
1200	2.8			1.9										
1330 1500				1.8									2.1	
1630		2.8	2.5	1.8									2.1	1,2
1800		2.7	2.4	1.9		2.0							2.0	1.3
1930		2.7	2.3			2.1								1.3
2100		2.6	2.2											1.4
2230			2.2											1.5
2400	2.8	2.6	2.1	1.9	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	1.6

DATE	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26
0130 0300 0430	1.6	1.7	2.1	2.0	2.0 1.9	1.8	1.6	1.6	1.8	1.8	1.8	1.8	1.8	1.8
0600 0730 0900 1030		1.7 1.8			1.9 1.8	1.7		1.6 1.7						1.8 1.7
1200 1330 1500	1.6	1.8	2.1 2.0					1.7 1.8						
1630 1800 1930 2100	1.7	1.9												
2230 2400	1.7	2.0 2.1	2.0	2.0	1.8	1.6	1.6	1.8	1.8	1.8	1.8	1.8	1.8	1.7
DATE TIME	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
0130 0300 0430	1.7	1.7	1.6 1.5 1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.1	1.2	1.2	1.2	1.1
0600 0730 0900 1030									1.3 1.2					
1200 1330 1500 1630 1800		1.7							1.2 1.1	1.1 1.2				1.1 1.0
1930 2100 2230		1.6	1.4 1.3				1.3						1.2 1.1	1.0
2400 DATE	1.7	1.6	1.3	1.3	1.3	1.3	1.2	1.3	1.1	1.2	1.2	1.2	1.1	1.0
TIME	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23
0130 0300	1.0	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
0430 0600 0730 0900 1030 1200 1330 1500	1.0 1.1													
1630 1800 1930 2100 2230		1.1 1.0												
2400	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

DATE	2-24	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8
0130 0300	1.0	1.0	1.0	0.7	0.7	0.7	0.7	0.8	0.9	1.0	1.1	1.0	1.0	0.9
0430							0.7							
0600							0.8							
0730 0900								0.8						
1030								0.9		1.0 1.1				
1200						0.7								
1330 1500						0.8							1.0	
1630													0.9	
1800			1.0			0.8			0.9		1.1 1.0			
1930			0.9			0.7			1.0					
2100 2230			0.8											
2400	1.0	1.0	0.7	0.7	0.7	0.7	0.8	0.9	1.0	1.1	1.0	1.0	0.9	0.9
DATE	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
TIME 0130	0.9	0.9	0.9	0.8	0.8	0.7	0.8	0.9	0.9	0.9	0.0	0.0	0.6	
0300	0.,	0.,	0.,	0.0	0.0	0.7	0.0	0.9	0.9	0.9	0.9	0.8	0.6	0.6
0430														
0600 0730						0.7 0.8								
0900						0.0								
1030														
1200 1330														
1500											0.9			
1630											0.8	0.8		
1800 1930			0.9									0.7		
2100			0.8		0.8							0.6		
2230					0.7									
2400	0.9	0.9	0.8	0.8	0.7	0.8	8.0	0.9	0.9	0.9	0.8	0.6	0.6	0.6
DATE	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5
0130	0.6	0.5	0.6	0.6	0,1	0.1	0.3	0.3	0.1	0.1	0.1	0.2	0.0	0.1
0300 0430				0.6		0.1					0.1			
0600	0.6			0.5	0.1	0.2		0.3			0.3	0.2		
0730	0.5	0.5		0.4	0.2			0.2			0.2	0.1		
0900		0.6		0.4	0.1									
1030 1200				0.3									0.0	0.1
1330								0.2				0.1	0.1	0.2
1500				0.3	0.1			0.1				0.0		
1630 1800				0.2	0.2	0.2								
1930				0.1	J.1	0.3								
2100														
2230 2400	0.5	0.6	0.6	0.1	0.1	0.3	0.3	0.1	0.1	0.1	0.2	0.0	0.1	0.3
00	3.5	0.0	5.0	J. I	0.1	0.5	0.5	0.1	0.1	0 • T	0.2	0.0	0.1	0.5

LAKE MICHIGAN, STATION 37, 30 m continued.

DATE	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19
TIME 0130 0300	0.3	0.1	0.3	0.1	0.1	0.3	1.0	1.0	1.0	1.0	1.0	1.0	1.2	1.2
0430 0600 0730 0900 1030 1200		0.1 0.2 0.2 0.3	0.3		0.1	0.3 0.4 0.6 0.7								
1330 1500 1630 1800	0.3		0.2		0.2	0.9						1.0		
1930 2100 2230 2400	0.2 0.2 0.1 0.1	0.3	0.1	0.1	0.3	1.0	1.0	1.0	1.0	1.0	1.0	1.1 1.2	1.2	1.2
DATE	4-20	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3
0130 0300 0430 0600 0730 0900 1030	1.2													
1200 1330 1500 1630 1800 1930 2100 2230	1.2 End													

LAKE MICHIGAN - STATION 37. Depth 60 m. Start 2 December 1963, 0900 CST; end 20 April 1964, 1705 CST. Instrument serial no. 353, film record 20,164. Initial cal. 0.5°C; final cal. 0.4°C.

DATE	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15
TIME														
0130		4.6	4.5	4.5	4.5	4.5	4.5	4.5	4.4	4.7	5.2	5.1	4.9	4.6
0300			4.6		4.5				4.4			5.0	4.9	4.5
0430		4.6			4.4				4.5		5.2	4.9	4.8	
0600		4.5						4.5	4.6		5.3	5.1	4.8	
0730								4.4	4.7	4.7		5.2	4.7	4.5
0900	4.5		4.6						4.8	4.8				4.4
1030			4.5							4.8	5.3	5.2		4.2
1200					4.4				4.8	4.9	5.4	5.1		4.4
1330					4.5				4.6	5.0				4.4
1500								4.4		5.1			4.7	4.5
1630	4.5							4.3	4.6	5.2			4.6	
1800	4.6						4.5	4.3	4.7	5.3	5.4	5.1		
1930							4.6	4.4	4.8	5.2	5.3	5.0		
2100							4.6	4.4	4.8		5.2	4.9		
2230							4.5	4.3	4.7		5.1			
2400	4.6	4.5	4.5	4.5	4.5	4.5	4.5	4.3	4.7	5.2	5.1	4.9	4.6	4.5
DATE	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
TIME														
0130	4.5	4.5	4.5	4.0	4.2	3.6	3.7	4.0	3.7	3.5	3.4	2.6	3.2	3.4
0300				4.3			3.8	4.0	3.5		3.4	2.6	3.2	
0430				4.4		3.6	3.7	3.9	3.4		3.3	2.7	3.1	
0600			4.5	4.4		3.7	3.6	3.8	3.4		3.0	2.9		
0730			4.1	4.3		3.5			3.5	3.5	2.6	3.1		
0900			3.8	4.3	4.2	3.5			3.6	3.6	2.5	3.4		
1030			3.6	3.9	3.8	3.6			3.5	3.7		3.5	3.1	
1200			3.5	4.3	3.9	3.7	3.6	3.8	3.5			3.5	3.2	
1330			3.4	4.4	3.6	3.7	3.7	3.7	3.1			3.4		
1500						3.8	3.9		3.1		2.5	3.4	3.2	
1630			3.4			3.9	4.0	3.7	3.4		2.6	3.3	3.3	
1800			3.5					3.6	3.4	3.7	2.5			
1930					3.6			3.5	3.6	3.6		3.3		
2100			3.5		3.5			3.6	3.5	3.5		3.2	3.3	3.4
2230			3.6		3.5	3.9		3.5	3.4	3.5	2.5		3.4	3.3
2400	4.5	4.5	3.8	4.4	3.6	3.7	4.0	3.6	3.5	3.4	2.6	3.2	3.4	3.3
DATE	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
TIME														
0130	3.3	3.0	2.8	2.8	2.6	2.5	2.5	2.6	2.4	2.5	2.6	2.6	2.3	2.1
0300	3.3	3.1			2.5				2.5					
0430	3.2			2.8	2.7							2.6		2.1
0600			2.8	2.9	2.8							2.5		2.0
0730			2.9		2.9					2.5				1.9
0900	3.2		3.0		2.8			2.6		2.6	2.6			1.7
1030	3.1		2.9		2.8			2.5			2.7			1.8
1200	3.0	3.1	2.7		2.7									1.9
1330	3.0	3.2	2.6									2.5	2.3	2.0
1500	2.9		2.5							2.6		2.4	2.2	
1630					2.7					2.5				
1800	2.9		2.5		2.6									
1930	3.0		2.7	2.9	2.5									2.0
2100			2.7	2.8				2.5					2.2	2.1
2230		3.2	2.8	2.8				2.4	0.5	2.5	0 -	0 /	2.1	0.1
2400	3.0	3.1	2.8	2.6	2.5	2.5	2.5	2.4	2.5	2.6	2.7	2.4	2.1	2,1

DATE	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26
TIME 0130 0300 0430	2.1	2.2	2.6 2.6 2.7	2.6	2.6 2.6 2.7	1.9 2.0 2.0	2.0	2.1 2.1 2.2	2.3	2.2	2.1	2.0 2.0 1.9	2.0 2.2 2.3	2.3 2.3 2.2
0600 0730 0900 1030 1200 1330	2.1 2.0	2.3 2.2 2.2 2.5 2.5	2.7 2.6 2.5	2.6 2.5	2.7 2.6 2.3 2.1	2.1 2.2 2.2 2.1 2.0	2.1	2.2 2.3 2.3 2.2	2.2 2.3 2.4 2.4 2.5		2.2	1.9 1.8	2.4 2.4 2.3 2.2 2.1	2.2
1500 1630 1800 1930	2.0 2.1 2.1	2.6	2.5 2.7 2.9	2.5	1.9			2.2	2.5 2.4 2.2 2.2		2.1			
2100 2230 2400	2.2	2.6	3.0 2.6 2.5	2.6	2.0 1.9 1.9	2.0	2.1	2.3	2.3	2.2	2.1	1.8 1.9 2.0	2.1 2.0 2.2	2.1
DATE	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
0130 0300	2.2	2.0	1.9	2.2	2.2	2.2	2.0	1.8	2.1	2.1	2.2	2.2	2.2	1.8
0430 0600 0730			2.0 2.0 2.1				1.9	1.9		2.1				1.8
0900 1030 1200	2.2	2.0 1.9	2.1				1.8	2.0 2.1						1.7 1.8
1330 1500 1630 1800	2.1 2.0		2.2	2.2		2.2		2.1 2.0	2.1 2.0				2.2 2.1 1.9	
1930 2100 2230				2.3 2.3 2.2		2.1 2.0	1.8 1.7		2.0				1.7 1.7 1.8	1.8 1.7
2400	2.0	1.9	2.2	2.2	2.2	2.0	1.7	2.0	2.1	2.2	2.2	2.2	1.8	1.6
DATE	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23
0130 0300 0430 0600	1.8 1.8 1.8 1.9	2.0	2.3	2.4	2.3	2.3 2.4	2.3 2.3 2.2 1.8	1.9 2.1 2.2 2.4	2.9	2.3	1.7 1.7 1.6	1.6	1.6	1.9 1.9 1.8 1.7
0730 0900 1030	1.0	2.1	2.2		2.4 2.3 2.3		1.6		2.0	2.2 2.0 1.9				1.7 1.6
1200 1330 1500 1630 1800	1.9 2.0 1.7 1.8	2.2 2.3	2.3		2.2 2.0 2.0 2.1 2.2		1.5 1.6	2.4 2.3 2.4	2.9 2.4 2.3	2.0 1.9 1.9			1.6	
1930 2100 2230 2400	1.8 1.9 2.0	2.3	2.3	2.4	2.3	2.4 2.3 2.3	1.6 1.7 1.7	2.4 2.5 2.5	2.3	1.9 1.7	1.6	1.6	1.7 1.7 1.8 1.9	1.6

DATE TIME	2-24	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8
0130 0300	1.6	1.6	1.8	1.8 1.8	2.0	2.2	2.5	2.5	2.5	1.8	1.8 1.7	1.6	1.6	1.5
0430 0600	1.6			1.7	1.9 2.0	2.3			2.5		1.7			
0730	1.5								1.9	1.8	1.6			
0900 1030	1.5		1.8 1.7	1.7		2.3			1.7 1.6	1.9			1.6	
1200	1.6		1.7	1.8		7.							1.5	
1330 1500			1.8	1.9						1.9				
1630 1800					2.0	2.4				1.8				1.5
1930				1.9	2.1	2.4				1.7				1.4
2100 2230		1.6 1.7		2.0	2.1				1.6	1.7				
2400	1.6	1.7	1.8	2.0	2.2	2.5	2.5	2.5	1.7	1.8	1.6	1.6	1.5	1.4
DATE	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
TIME 0130	1.4	1.4	1.2	1.0	1.0	1.4	1.8	1.6	1.7	1.5	1.6	1.5	1.0	1.1
0300 0430			1.2			1.4			1.7			1.5		
0600		1.4 1.3	1.1			1.3			1.6			1.4		
0730 0900					1.0	1 2		1.6						
1030					0.9	1.3 1.2		1.7					1.0	
1200		1.3				1.3							1.1	
1330 1500		1.2			0.9	1.4 1.5		1.7 1.8		1.5		1.4		
1630	. ,					1.6				1.6		1.3		
1800 1930	1.4 1.5		1.1			1.7 1.6	1.8 1.7	1.8 1.7	1.6 1.5		1.6	1.1		
2100			1.0			1.7	1.6	1.6			1.5			
2230 2400	1.5 1.4	1.2	1.0	1.0	0.8	1.8	1.6	1.6 1.7	1.5	1.6	1.5	1.0	1.1	1.1
DATE	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5
TIME														
0130 0300	1.1	1.1	1.4 1.5	0.9	0.6	1.3	1.6	1.2	0.8	1.2 1.3	1.4	0.8	0.8	1.3 1.2
0430		1.2	1.5	0.7		1.4		1.0		1.0		0.7	0.8	1.1
0600		1.3	1.3	0.8			1.6	1.0		0.9		0.7	0.7	1.2
0730 0900		1.4	1.2				1.7	1.0		0.8		0.6	0.7	1.3
1030		1.6	1.1	0.8		1.4		0.5		1.0			0.9	1.4
1200		1.6		0.7		1.5				1.1	1.4		1.1	
1330 1500		1.5 1.4	1.1	0.7	0.6	1.6				1.3 1.3	1.5 1.5		1.2 1.3	1.4
1630		1.4	0.9	0.6	0.7		1.7	0.9	0.8	1.2	1.6		1.3	1.5
1800					0.7		1.8	0.8	0.9	1.2			1.0	
1930 2100		1.4	0.9		0.8 1.1		1.7 1.5		1.0 1.1	1.3 1.4	1.6 1.4	0.6	1.1 1.2	
2230		1.5	1.0		1.2		1.5		1.2	1.5	0.9	0.7	1.3	
2400	1.1	1.5	0.9	0.6	1.3	1.6	1.4	0.8	1.2	1.4	0.8	0.8	1.3	1.5

LAKE MICHIGAN, STATION 37, 60 m continued.

DATE	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19
	4-0	4-/	4-0	4-3	4-10	4-11	4-12	4-1,5	4-14	7-13	4-10	7-1/	4-10	7 17
TIME														
0130	1.5	1.2	1.3	0.7	0.9	1.6	1.8							
0300	1.4	1.2	1.1		0.9		1.9							
0430		1.0	0.9		0.9		1.9							
0600	1.4	1.4	0.8		1.0			_						
0730	1.5	1.5		0.7	1.1		End o							
0900		1.5		0.8	1.2	1.6	recor	:d						
1030		1.6		•••	1.3	1.7								
1200		1.0			1.4	1.7								
1330	1.5				1.4	1.7								
1500	1.4	1.6	0.8		1.5	1.8								
1630	1.4	1.5	0.7		1.5									
1800	1.2	1.5			1.6									
1930	1.1	1.4												
2100	1.0			0.8										
2230	1.0			0.9										
2400	1.1	1.4	0.7	0.9	1.6	1.8								
2400	T. T	1.4	0.7	0.9	1.0	T.0								

LAKE MICHIGAN - STATION 38. Depth 10 m. Start 2 December 1963, 1200 CST; end 3 May 1964, 1635 CST. Instrument serial no. 302, film record 20,171. Initial cal. 0.5°C; final cal. 0°C.

DATE	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15
TIME														
0130		7.1	7.0	6.8	6.2	6.3	6.5	6.7	6.0	6.0	6.1	6.0	5.7	5.7
0300		7.1		6.7	6.0		6.6		6.0		6.0			5.6
0430		7.0			5.9				5.8					
0600					6.1		6.6		5.8					
0730					6.2		6.7	6.7	5.7		6.0	6.0		
0900				6.7	6.2	6.3		6.5	5.7		6.1	5.9		
1030				6.8	6.3	6.4		6.0	5.8			5.8		
1200				6.8	6.3	6.5		5.6	6.0			5.8		
1330	7.0		7.0	6.7	6.4	6.6		5.5				5.9		
1500	7.1		6.9	6.7	6.5	6.7		5.7		6.0		5.9		
1630		7.0	6.8	6.6	6.5	6.7		6.0		6.1		5.7		
1800		6.9		6.5	6.4	6.6		6.2						
1930		7.0		6.4	6.3	6.5						5.7		
2100				6.3								5.8		
2230				6.2								5.7		
2400	7.1	7.0	6.8	6.2	6.3	6.5	6.7	6.2	6.0	6.1	6.1	5.7	5.7	5.6

DATE	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
TIME														
0130	5.6	5.6	5.6	5.4	5.2	5.1	5.1	5.1	5.0	4.9	4.8	4.7	4.7	4.6
0300			5.6	5.3				5.1		4.8	4.8		4.7	
0430			5.5		5.2			5.0			4.7		4.6	
0600		5.6			5.1									
0730		5.5								4.8				
0900		5.5	5.5							4.7				
1030		5.6	5.4										4.6	4.6
1200													4.5	4.5
1330				5.3					5.0					
1500				5.2					4.9					
1630														
1800			5.4							4.7				
1930			5.5							4.8				
2100								5.0						
2230			5.5					4.9						
2400	5.6	5.6	5.4	5.2	5.1	5.1	5.1	4.9	4.9	4.8	4.7	4.7	4.5	4.5
DATE	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
TIME														
0130	4.5	4.5	4.4	4.5	4.5	4.5	4.3	4.4	3.9	4.0	4.4	4.1	4.0	4.1
0300		4.4				4.4			4.2	4.0				
0430		4.3				4.4			4.1	4.2		4.1		
0600						4.3		4.4		4.3	4.4	4.0		
0730								4.3	4.1	4.4	4.3			
0900								4.3	4.2	4.5			4.0	
1030								3.7		4.6			4.1	4.1
1200						4.3		3.5	4.2		4.3			4.0
1330				4.5		4.2	4.3		4.3		4.1			
1500				4.6			4.4				4.0			
1630								3.5						4.0
1800					4.5			3.6						4.1
1930			4.4		4.6			3.5						
2100			4.3	4.6	4.6			3.5		4.6				
2230				4.5	4.5			3.4	4.3	4.5	4.0			
2400	4.5	4.3	4.3	4.5	4.5	4.2	4.4	3.4	4.1	4.4	4.1	4.0	4.1	4.1
DATE	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26
TIME														
0130	4.1	4.1	4.0	4.0	4.0	4.0	4.0	4.0	3.7	4.0	3.8	3.0	3.5	3.2
0300		4.1						4.0				3.0		3.3
0430		4.0						3.9				3.1		3.3
0600									3.7		3.8	3.1	3.5	3.4
0730									3.8		3.7	3.2	3.1	3.4
0900									3.8		3.7	3.2	2.9	3.5
1030								3.9	4.0		3.5	3.3	2.8	
1200								3.8		4.0	3.2	3.4		3.5
1330										3.9	3.0	3.5		3.4
1500													2.8	
1630													2.9	
1800										3.9	3.0		2.9	
1930										3.8	3.1		3.0	
2100								3.8			3.2		3.0	3.4
2230								3.7			3.2	0.5	3.1	3.3
2400	4.1	4.0	4.0	4.0	4.0	4.0	4.0	3.7	4.0	3.8	3.1	3.5	3.2	3.3

DATE	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
0130	3.3	3.1	3.2	3.3	3.3	2.7	2.9	2.9	2.7	2.7	2.5	2.6	2.4	2.8
0300 0430 0600 0730 0900	3.2 3.1 3.2	3.1 3.2 3.2			3.3 3.2 3.2 3.1 3.0	2.7 2.6		2.9		2.6		2.6 2.5	2.4 2.5 2.5 2.6	2.8 2.9
1030 1200 1330 1500 1630	3.1	3.3	3.2 3.3		3.0 2.9	2.6 2.7 2.8 2.9		2.8			2.5 2.6	2.5 2.4		2.9
1800 1930 2100 2230					2.9 2.8 2.8 2.7	3.0 3.0 2.9					0.6		2.6 2.7 2.7	2.7 2.6 2.6
2400 DATE	3.1 2-10	3.3 2-11	3.3 2-12	3.3 2-13	2.7 2-14	2.9 2-15	2.9 2-16	2.7 2-17	2.7 2-18	2.5 2-19	2.6 2-20	2.4 2-21	2.8 2-22	2-23
TIME														
0130 0300	2.6	2.7 2.7	2.7 2.6	2.5	2.8	2.8	2.9	2.9	2.9	2.6	2.6	2.6	2.6	2.7
0430 0600 0730 0900	2.6 2.5	2.8		2.5 2.6		2.7			2.8 2.8 2.7	2.6 2.5			2.6	
1030 1200 1330 1500 1630 1800 1930		2.7	2.6 2.5	2.6 2.7	2.8 2.9 2.9	2.7 2.8 2.9				2.5			2.5 2.6	2.7 2.6 2.5
2100 2230 2400	2.5 2.6 2.7	2.7	2.5	2.8	2.8	2.9	2.9	2.9	2.7	2.6	2.6	2.6	2.6 2.7 2.8	2.5
DATE	2-24	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8
TIME 0130 0300 0430 0600	2.5 2.5 2.4	2.3	2.4	2.4 2.4 2.5	2.5	2.4 2.4 2.3	2.3 2.3 2.2	2.1	2.1 2.1 2.0	2.0	2.1 2.1 2.0	2.3	2.3	2.3 2.3 2.2 2.2
0730 0900 1030 1200 1330	2.4 2.3	2.3 2.4 2.5	2.5		2.4				2.0 2.1		2.0 2.1 2.1	2.3 2.2 2.2 2.3	2.2	2.1 2.1 2.2 2.3
1500 1630 1800 1930 2100		2.5		2.5	2.4		2.2		2.1	2.0 2.1	2.2	2.3 2.4	2.2 2.3 2.3 2.4 2.4	2.3 2.2 2.2
2230 2400	2.3	2.4	2.4	2.4	2.5 2.4	2.3	2.1	2.1	2.0	2.1	2.3	2.3	2.3	2.1

					-									
DATE	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
TIME 0130	2.1	2.2	2.0	2.0	2.3	2.6	2.1	1.9	2.1	2.3	2.0	2.3	2.5	2.2
0300	2.1	2.2	1.9	2.0	2.5	2.6	2.0	1.,	2.1	2.5	2,0	2.5	2.3	2.1
0430	2.0	2.1	2.,,	1.9		2.5			2.2					
0600		2.0	1.9	1.9		2.4			2.2					
0730		1.9	2.0	1.8					2.3					
0900	2.0		2.2					1.9	2.3	2.3				2.1
1030 1200	2.2		2.6	1.8	2.3			2.0	2.4	2.3				2.2
1330	2.4		2.5	2.0	2.4					2.2	2.0			2.3
1500			2.3	2.3	2.5	2.4					2.1			2.4
1630	2.4		2.1	2.4		2.3								2.5
1800	2.3		1.9		2.5				2.4		2.1			2.5
1930					2.6				2.3		2.2			2.4
2100	2.3			2.4		0 0	0.0	2.0		2.2	2.2	2.3	2.5	2.4
2230 2400	2.2	1.9	1.9	2.3	2.6	2.3	2.0 1.9	2.1	2.3	2.0	2.3	2.4	2.4	2.3
				3-26		3-28		3-30	3-31		4-2	4-3	4-4	4-5
DATE	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5
0130	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.2	2.3	2.4	2.4	2.5	2.5	2.4
0300				2.3			2.3							
0430				2.2			2.2							
0600						2.4						2.5		
0730 0900	2.3	2.3		2.2		2.3					2.4	2.4		
1030	2.2	2.4		2.3					2.3		2.5	2.7	2.5	
1200									2.4				2.4	
1330		2.4												
1500		2.3												
1630	0.0	2.2		2.3				2.2				2.4		
1800 1930	2.2			2.4				2.3				2.5		
2100	2.3	2.2		2.4								2.5		
2230		2.3												
2400	2.3	2.3	2.3	2.4	2.4	2.3	2.2	2.3	2.4	2.4	2.5	2.5	2.4	2.4
DATE	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19
TIME					0.0	2 2	2.3	2.4	2.4	2.4	2.5	2.4	2.3	2,4
0130 0300	2.4	2.4	2.4	2.2	2.3	2.3	2.3	2.4	2.4	2.4	2.5	2.4	2.3	2.4
0430														
0600			2.4										2.3	
0730			2.3				2.3				2.5		2.4	
0900							2.4				2.4			
1030 1200				2.2										
1330				2,3										
1500														
1630										2.4				
1800										2.5				
1930												2.4		
2100 2230												2.3		
2400	2.4	2.4	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.5	2.4	2.3	2.4	2.4

LAKE MICHIGAN, STATION 38, 10 m continued.

DATE	4-20	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3
TIME														
0130	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.4		
0300												2.4		
0430												Data		
0600												ends		
0730											2.5			
0900											2.4			
1030														
1200														
1330														
1500														
1630														
1800														
1930														
2100										2.4				
2230										2.5				
2400	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.4			

LAKE MICHIGAN - STATION 38. Depth 15 m. Start 2 December 1963, 1200 CST; end 3 May 1964, 1635 CST. Instrument serial no. 270, film record 20,172. Initial cal. 0°C; final cal. Indet.

DATE 12-2 12-3 12-4 12-5 12-6 12-7 12-8 12-9 12-10 12-11 12-12 12-13 12-14 12-15 TIME 0130 6.9 6.9 6.1 6.3 6.7 6.1 6.2 6.0 5.9 5.9 5.9 5.7 5.6 0300 6.7 6.0 6.2 0430 6.6 5.9 6.3 5.9 0600 6.0 6.0 5.9 0730 6.3 6.0 6.0 5.6 0900 6.9 6.1 6.2 5.9 5.5 1030 6.8 6.0 6.2 6.1 1200 6.1 6.2 6.0 1330 6.8 6.9 6.3 5.4 5.9 1500 6.9 6.8 6.8 6.6 5.5 6.0 5.8 1630 6.7 6.7 6.5 5.6 5.9 1800 6.8 6.4 6.3 5.9 6.0 1930 6.9 6.3 6.2 6.0 5.9 5.7 5.6 2100 6.2 6.1 2230 6.2 5.8 6.1 2400 6.9 6.7 6.2 6.3 6.9 6.1 6.1 6.0 5.9 5.9 5.9 5.7 5.6 5.5

DATE	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
0130	5.5	5.5	5.4	5.2	5.1	5.0	5.0	5.0	4.9	4.9	4.8	4.7	4.6	4.6
0300 0430			F /											
0600 0730			5.4 5.3		5.1									
0900 1030				5.2 5.1	5.0						4.8			
1200											4.7			
1330 1500										4.9				
1630 1800								5.0 4.9		4.8				4.6
1930 2100		5.5 5.4	5.3 5.2									4.7		4.5
2230											, -	4.6		, -
2400 DATE	5.5 12-30	5.4	5.2 1-1	5.1 1-2	5.0 1-3	5.0 1-4	5.0 1-5	4.9 1-6	4.9 1-7	4.8 1-8	4.7 1-9	4.6 1-10	4.6 1-11	4.5 1-12
TIME														
0130 0300	4.5	4.4	4.3	4.3	4.3	4.3	4.3	4.2	4.1	4.1 4.2	4.1	4.0	4.0	4.1
0430 0600								4.2		4.3				
0730								3.8			4.1			
0900 1030											4.0			4.1 4.0
1200 1330														
1500		4.4					4.3		4.1	4.3			4.0	
1630 1800		4.3					4.2		4.0	4.1			4.1	
1930 2100	4.5 4.4							3.8 4.0	4.0 3.9	4.1				
2230 2400	4.4	4.3	4.3	4.3	4.3	4.3	4.2	4.0 4.1	4.0 4.1	4.0 4.1	4.0	4.0	4.1	4.0
DATE	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26
TIME 0130	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.9	4.0	3.9	3.0	3.2	3.0
0300	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.7	4.0	3.9	3.0	3.0	5.0
0430 0600									3.9		3.8 3.5	3.1	2.9	3.0
0730 0900								4.0	4.0		3.3	3.1 3.2		3.1
1030								3.9		4.0 3.9	3.0			
1200 1330										3.9				3.1
1500 1630													2.9 3.0	3.0
1800 1930														
2100														
2230 2400	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.9	4.0	3.9	3.0	3.2	3.0	3.0

LAKE MICHIGAN, STATION 38, 15 m. continued.

1	JAKE MI	CHIGAN	, SIAI	TON 30	, тэп	. cont	inuea.							
DATE	1-27	1-28	1-29	1-30	_1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
TIME														
0130	3.0	3.0	3.0	3.0	3.0	2.8	2.9	2.9	2.7	2.6	2.4	2.5	2.4	2.8
0300						2.8								
0430						2.7						2.5		
0600				3.0		2.8		2.9		2.6		2.4		
0730				3.1				2.8		2.5				
0900													2.4	
1030						2.8					2.4		2.5	
1200					3.0	2.9					2.5			2.8
1330				3.1	2.9	3.0								2.7
1500				3.0		2.9		2.8					2.5	2.7
1630								2.7					2.6	2.6
1800					2.9					2.5				2.6
1930					2.8				2.7	2.4			2.6	2.5
2100									2.6				2.7	
2230													2.7	
2400	3.0	3.0	3.0	3.0	2.8	2.9	2.9	2.7	2.6	2.4	2.5	2.4	2.8	2.5
DATE	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23
TIME	2 -	2.0	2.7	0.7	2.0	2.8	2.0	2.0	2 0	2 5	0 F	2 5	2 /	2 5
0130 0300	2.5	2.8	2.7	2.7	2.9		2.9	2.8	2.8	2.5	2.5	2.5	2.4	2.5
0430						2.8								
	0.5					2.7						2.5		
0600	2.5								2 0					
0730	2.4				2.9	0 7			2.8			2.4		2.5
0900		2.8			2.8	2.7			2.7					2.4
1030						2.8								2.4
1200		2.7												
1330				0 7			0.0		0 7					
1500				2.7			2.9		2.7					
1630				2.8			2.8		2.6					
1800	2.4					2.8							2.4	
1930	2.5					2.9							2.5	
2100	2.6								2.6					
2230	2.7			2.8					2.5					
2400	2.8	2.7	2.7	2.9	2.8	2.9	2.8	2.8	2.5	2.5	2.5	2.4	2.5	2.4
DATE	2-24	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8
TIME 0130	2.4	2.4	2.4	2.4	2.3	2.3	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1
0300	2.4	2.4	2.4	2.4	2.3	2.3	2.1	2.1	2.0	2.0	2.0	2.1	2.1	4.1
0430						2.3								
0600						2.2		2.1						2.1
0730								2.0						2.2
0900	2.4													
1030	2.3													
1200													2.1	
1330													2.2	
1500														2.2
1630						2.2					2.0			2.1
1800	2.3					2.1					2.1			
1930	2.4			2.4										
2100				2.3									2.2	
2230													2.1	
2400	2.4	2.4	2.4	2.3	2.3	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1
2.00		~••		5	2.5			0	2.0	0				

LAKE MICHIGAN, STATION 38, 15 m. continued.

DATE TIME	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
0130 0300 0430	2.1	2.0 1.9	2.1 2.4 2.7	2.0 1.9 1.8	2.1	2.1	1.9	1.9	2.0	2.1	1.9	2.1	2,2	2.0 2.0 2.1
0600 0730 0900	2.1 2.2 2.3		2.8 2.6 2.4	1.8 1.9 1.9						2.1	1.9 2.0			2,1
1030 1200	2.3		2.4	2.0						2.0				2.2
1330 1500 1630	2.2		2.0	2.2	2.1 2.2 2.2				2.0 2.1					
1800 1930 2100	2.1	1.9 2.0			2.3	2.1 2.0 2.0	1.9 1.8	1.9 2.0		2.0 1.9		2.1	2.2	2.3
2230 2400	2.0	2.0	2.0	2.1	2.3	1.9 1.9	1.8	2.0	2.1	1.9	2.0	2.2	2.0 2.0	2.2
DATE TIME	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5
0130 0300	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.2	2.2	2.1
0430 0600 0730 0900	2.2								2.2				2.2 2.1	
1030 1200		2.1 2.0						2.1	2.5					
1330 1500 1630								2.2						
1800 1930 2100		2.0 2.1									2.3			
2230 2400	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.2	2.2	2.1	2.1
DATE TIME	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19
0130 0300 0430	2.1	2.3	2.2	2.2	2.4	2.4	2.4	2.3	2.2	2.2	2.2	2.2	2.4	2.4
0600 0730	2.1			2.2				2,3				2.2		
0900 1030 1200 1330	2.2						2.4 2.3	2.3						
1500 1630 1800 1930 2100		2.3		2.3								2.3 2.4		2.4 2.3
2230 2400	2.2	2.2	2.2	2.4	2.4	2.4	2.3	2.2	2.2	2.2	2.2	2.4	2.4	2.3

LAKE MICHIGAN, STATION, 38, 15 m. continued.

DATE	4-20	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3
TIME														
0130	2.3	2.2	2.1	2.2	2.3	2.4								
0300														
0430														
0600														
0730														
0900														
1030			2.1	2.2										
1200			2.2	2.3										
1330	2.3													
1500	2.2				2.3									
1630					2.4									
1800		2.2												
1930		2.1												
2100														
2230						2.4	_		_					
2400	2.3	2.1	2.2	2.3	2.4	ran o	ut of	film,	Data e	nds.				

LAKE MICHIGAN - STATION 38. Depth 22 m.

Start 2 December 1963, 1200 CST; end 3 May 1964, 1635 CST.
Instrument serial no. 148, film record 20,173. Initial cal. +0.2°C; final cal. 0°C.

DATE	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15
TIME														
0130		7.0	6.9	6.8	6.7	6.0	6.1	6.2	6.4	5.2	6.0	6.0	6.0	6.0
0300			6.9							5.4				
0430			7.0		6.7					5.6				
0600					6.6					5.8				
0730					6.5					6.0				
0900			7.0		6.5			6.2						
1030			6.9		6.4	6.0	6.1	6.3						
1200	6.7			6.8	6.3	6.1	6.2							6.0
1330	6.8	7.0		6.7	6.2		6.2		6.4					5.9
1500	6.9	6.9			6.1		6.3		6.3					
1630	7.0				6.0				6.2					
1800					6.0			6.3	6.1					
1930			6.9		5.9			6.4	6.0					
2100			6.8		6.0				5.8					
2230							6.3		5.5					
2400	7.0	6.9	6.8	6.7	6.0	6.1	6.2	6.4	5.3	6.0	6.0	6.0	6.0	5.9

LAKE MICHIGAN, STATION 38, 22 m. continued.

DATE TIME	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
0130 0300	5.9	5.8	5.7	5.7	5.6	5.5	5.4	5.2	5.0	5.0	5.0	4.9	4.9	4.8
0430 0600 0730 0900 1030	5.9 5.8	5.8 5.7					5.4 5.3	5.2 5.1				4.9 5.0		4.8 4.7
1200 1330 1500 1630				5.7 5.6	5.6 5.5	5.5 5.4	5.3					5.0 4.9		
1800 1930 2100 2230							5.2							4.7 4.6
2400	5.8	5.7	5.7	5.6	5.5	5.4	5.2	5.1	5.0	5.0	5.0	4.9	4.9	4.6
DATE	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
0130 0300 0430 0600 0730	4.6 4.6 4.5	4.4	4.3	4.3 4.3 4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4,1	4.2
0900 1030 1200 1330 1500 1630 1800 1930 2100 2230	4.5 4.4	4.4 4.3											4.1 4.2	
2400	4.4	4.3	4.3	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
DATE	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26
0130 0300 0430 0600 0730 0900 1030 1200	4.2 4.1 4.1 4.0 3.9 3.8 3.7	4.0 4.0 4.1	4.2 4.1 4.0 4.0 4.1 4.1	4.6 4.5 4.5 4.4 4.4 4.3	4.1 4.1 4.0	4.1 4.1 4.0	4.0	4.0	4.1 4.1 4.0	4.0	4.0	4.0	4.0	3.9
1330 1500 1630 1800 1930 2100 2230 2400	3.6 3.7 3.8	4.1 4.2	4.3 4.4 4.4 4.5 4.6	4.2 4.2 4.1 4.2	4.0 4.1 4.1	4.0	4.0	4.0 4.1	4.0	4.0	4.0	4.0	4.0 3.9 3.9	3.9

LAKE MICHIGAN, STATION 38, 22 m. continued.

	MKE HI	CIIIGAN												
DATE	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
TIME														
0130	3.9	3.9	3.9	3.9	3.7	3.9	3.8	2.9	3.1	3.1	3.2	3.1	3.1	3.2
0300									3.1	3.0				
0430				2 0	3.7			0 0	3.2	2.9				
0600				3.9	3.8		2 0	2.9						
0730 0900				3.8	3.8 3.9		3.8 3.7	3.0						
1030					3.9		3.7							
1200														
1330										2.9				
1500										3.0				
1630				3.8			3.7							
1800				3.7			3.6						3.1	
1930							3.5						3.2	
2100							3.3			3.0				
2230							3.0			3.1				
2400	3.9	3.9	3.9	3.7	3.9	3.9	2.9	3.0	3.2	3.2	3.2	3.1	3.2	3.2
DATE	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23
TIME														
0130	3.2	3.2	3.1	2.8	2.9	2.9	2.8	2.5	2.4	2.3	2.3	2.2	2.3	2.8
0300														2.8
0430			3.1				• •						2 2	2.9
0600 0730			3.0				2.8						2.3	
0900							2.1						2.4	
1030				2.8									2.5	
1200			3.0	2.7			2.7		2.4				2.5	
1330			2.9				2.6		2.3				2.6	
1500				2.7										
1630		3.2		2.8									2.6	2.9
1800		3.1		2.8									2.7	2.8
1930				2.9			2.6				2.3		2.7	2.7
2100						2.9	2.5	2.5			2.2	2.2	2.8	2.6
2230						2.8		2.4				2.3		
2400	3.2	3.1	2.9	2.9	2.9	2.8	2.5	2.4	2.3	2.3	2.2	2.3	2.8	2.6
DATE	2-24	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8
TIME 0130	2.6	2.7	2.7	2.5	2.5	2.7	2.6	2.7	2.7	2.7	2.7	2.5	2.5	2.7
0300	2.0	2.7	2.1	2.5	2.5	2.1	2.0	2.1	2.7	2.7	2.1	2.5	2.5	2.1
0430														
0600														
													2.5	
0730	2.6	2.7					2.6				2.7		2.5	
0730 0900	2.6	2.7	2.7				2.6				2.7		2.5 2.6	
			2.7											
0900 1030 1200					2.5	2.7								2.7
0900 1030 1200 1330					2.5	2.7	2.5						2.6	2.7 2.6
0900 1030 1200 1330 1500	2.7	2.8					2.5						2.6	
0900 1030 1200 1330 1500 1630	2.7	2.8					2.5						2.6	
0900 1030 1200 1330 1500 1630 1800	2.7	2.8					2.5				2.6		2.6	
0900 1030 1200 1330 1500 1630 1800 1930	2.7	2.8	2.6		2.6		2.5 2.5 2.6				2.6		2.6	
0900 1030 1200 1330 1500 1630 1800 1930 2100	2.7	2.8	2.6		2.6		2.5 2.5 2.6				2.6		2.6	
0900 1030 1200 1330 1500 1630 1800 1930	2.7	2.8	2.6	2.5	2.6		2.5 2.5 2.6	2.7	2.7	2.7	2.6	2.5	2.6	

LAKE MICHIGAN, STATION 38, 22 m. continued.

-	MICE III	OHLOZH	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		,									
DATE	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
TIME 0130	2.6	2.6	2.6	2.4	2.3	2.3	2.3	2.4	2.2	2.2	2.0	2.0	2.0	2.0
0300	2.0	2.6	2.0	2.4	2.3	2.3	2.5	2.4	2.2	2.2	2.0	2.0	2.0	2.0
0430		2.5						2.3		2.2				
0600		2.5		2.4				2.5		2.1				
0730			2.6	2.3		2.3				2.1				
0900			2.5			2.4				2.0				
1030	2.6	2.5				2.5			2.2					
1200	2.5	2.6			2.3				2.3					
1330					2.4		2.3							
1500						2.5	2.4							2.0
1630					2.4	2.4	2.4							1.9
1800	2.5				2.5		2.5							
1930	2.6		2.5		2.5	2.4		2.3	2.3					
2100 2230			2.4		2.4	2.4		2.2	2.2					
2400	2.6	2.6	2.4	2.3	2.3	2.3	2.5	2.2	2.2	2.0	2.0	2.0	2.0	1.9
DATE						3-28	3-29			4-1	4-2	4-3	4-4	
TIME	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5
0130	1.9	2.0	2.1	2.1	2.1	2.2	2.0	2.1	1.9	2.0	2.2	2.3	2.4	2.0
0300					2.1			2.0	2.0		2.3			
0430					2.2			1.9	2.1		2.4	2.3	2.4	2.0
0600					2.2		2.0	1.9	2.2			2.4	2.3	1.9
0730 0900					2.3	2.2	2.1	1.8	2.2	2.0		2.4		1.8 1.7
1030						2.1	2.4		2.4	1.9		2.5		1.7
1200	1.9					2.1	2.4		2.5	1.,		2.5		
1330	2.0					2.0			2.7	1.9				
1500		2.0		2.1			2.4		2.8	1.8		2.5		
1630		2.1		2.0			2.3		2.9	1.7	2.4	2.6		
1800							2.2	1.8	2.9	1.7	2.3		2.3	
1930								1.9	2.7	1.8			2.2	
2100				2.0	2.3				2.5	1.9		2.6	2.1	1.7
2230				2.1	2.2				2.3	2.0		2.5	2.1	1.6
2400	2.0	2.1	2.1	2.1	2.2	2.0	2.2	1.9	2.1	2.1	2.3	2.4	2.0	1.6
DATE	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19
TIME 0130	1.6	1.6	2.2	2.1	1.9	2.2	2.4	2.4	2.3	2.3	2.3	2.3	2.2	2.1
0300	1.0	1.6	2.2	2.1	1.9	2.2	2.4	2.4	2.4	2.5	2.3	2.3	2.2	2.1
0430		1.7				2.2			2.4					2.1
0600	1.6	1.7			1.9	2.3			2.5				2.2	2.2
0730	1.5	1.8			2.0			2.4					2.1	
0900	1.5	1.9						2.3						
1030	1.6	1.9						2.1	2.5					
1200		2.0		2.1					2.4					
1330		2.0		2.0				2.1	2.4			0 0		
1500		2.1		2.0 1.9	2 0			2.2	2.3		2.3	2.3		
1630 1800		2.1		1.9	2.0			2.3	2.4		2.2	4.4		
1930		2.2			2.2				2.5					
2100			2.2						2.5					
2230			2.1						2.4		2.2			
2400	1.6	2.2	2.1	1.9	2.2	2.3	2.4	2.3	2.3	2.3	2.3	2.2	2.1	2.2

LAKE MICHIGAN, STATION 38, 22 m. continued.

DATE	4-20	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3
TIME	2.1	0.1	2.2	2.2	2.4	2.4	2.3	2.3	2.4	2.4	2.4	2.3	2.3	2.3
0130 0300	2.1	2.1	2.2	2.2	2.4	2.4	2.3	2.3	2.4	2.4	2.3	2.5	2.5	2.3
0430											2.5			
0600				2.2										
0730				2.3										
0900					2.4									2.3
1030					2.3	2.4								2.2
1200 1330						2.3								2.0
1500														1.9
1630														1.7
1800														End
1930				2.3	2.3									Record
2100				2.4	2.4									
2230 2400	2 1	0 1	2.2	2.4	2.4	2.3	2.3	2.3	2.4	2.4	2.3	2.3	2.3	
2400	2.1	2.1	2.2	2.4	2.4	2.3	2.3	2.3	2.4	2.4	2.3	2.5	2.5	

LAKE MICHIGAN - STATION 38. Depth 30 m. Start 2 December 1963, 1200 CST; end 3 May 1964, 1635 CST. Instrument serial no. 274, film record 20,174. Initial cal. -0.2°C; final cal.+0.3°C.

Instrument serial no. 274, film record 20,1/4. Initial cal. -0.2°C; final cal. +0.3°C.

DATE 12-2 12-3 12-4 12-5 12-6 12-7 12-8 12-9 12-10 12-11 12-12 12-13 12-14 12-15

DATE	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15
TIME														
0130		6.5	6.9	6.7	6.6	6.4	6.4	6.4	6.0	6.2	6.2	6.2	6.2	6.3
0300														
0430		6.5												
0600		6.6						6.4						
0730		6.6						6.3						
0900		6.8						6.3	6.0		6.2	6.2		
1030		7.0						6.2	6.1		6.1	6.3		
1200	6.3	7.0	6.9	6.7	6.6							6.3		
1330	6.3	6.9	6.8	6.6	6.5							6.2		
1500	6.4		6.8		6.5									
1630	6.4		6.7		6.4									
1800	6.5										6.1			
1930											6.2			
2100								6.2	6.1				6.2	
2230								6.1	6.2				6.3	
2400	6.5	6.9	6.7	6.6	6.4	6.4	6.4	6.1	6.2	6.2	6.2	6.2	6.3	6.3

LAKE MICHIGAN, STATION 38, 30 m. continued.

DATE	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
TIME 0130 0300 0430 0600 0730	6.3	5.4 5.3 5.3 5.4 5.5	6.0	5.9	5.9	5.9	5.9	5.9	5.9	5.9 5.9 5.8	5.7	5.7	5.5 5.5 5.4	5.4
0730 0900 1030 1200 1330 1500	6.3	5.6 5.7 5.8 5.9 6.0										5.7 5.6		5.4 5.5
1630 1800 1930 2100	6.2 6.2 5.8 5.6	6.1	6.0							5.8 5.7		5.6 5.5		
2230 2400	5.6 5.5	6.1	5.9 5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.7	5.7	5.5	5,4	5.5
DATE	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
0130 0300 0430	5.5	5.4	5.4	5.4	5.3	5.3	5.1	5.1	5.1	5.0	5.0	5.0	4.9	4.9
0600 0730 0900 1030				5.4 5.3		5.3 5.2								
1200 1330 1500 1630 1800 1930	5.5 5.4								5.1 5.0					
2100 2230 2400	5.4	5.4	5.4	5.3	5.3	5.2	5.1	5.1	5.0	5.0	5.0	5.0 4.9 4.9	4.9	4.9
DATE	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26
TIME 0130 0300 0430	4.9	4.8	4.8 4.8 4.7	4.7	4.6	4,5	4.4	4.3	4.3	4.3 4.3 4.2	4.2	4.2	4.2	4.2
0600 0730 0900 1030	4.9 4.8		4.7			4.5 4.4	4.4 4.3			4.2				
1200 1330 1500 1630 1800 1930 2100				4.7	4.6 4.5									
2230 2400	4.8	4.8	4.7	4.6 4.6	4.5	4.4	4.3	4.3	4.3	4.2	4.2	4.2	4.2	4.2

			,	-1011	0, 50	m. con	cinuea							
DATE	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
0130	4.2	4.2	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.9
0300 0430														
0600 0730														
0900		4.2												
1030 1200		4.1												
1330														
1500 1630														
1800														
1930 2100		4.1												
2230 2400	4.2	4.0 4.0	4.0	4.0	4.0	, ,		, ,						
DATE	2-10	2-11	2-12	2-13	2-14	4.0 2-15	4.0 2-16	4.0 2-17	4.0 2-18	4.0 2-19	4.0 2-20	4.0	4.0	3.9
TIME										2-19		2-21	2-22	2-23
0130 0300	3.9	3.9	3.9	3.7 3.6	3.1 3.2	3.8	3.8 3.8	4.0	4.0	4.0	3.5	3.6	3.5	3.6
0430 0600				3.5 3.4	3.3		3.7							
0730				3.3	3.4		3.6 3.5			4.0 3.9			3.5 3.6	
0900 1030				3.2 3.1			3.5			3.9 3.8				
1200				3.1			3.6			3.7				
1330 1500					3.4 3.5		3.7 3.7			3.6 3.5				
1630 1800					3.6		3.8							
1930					3.6		3.8 3.9					3.6 3.5		
2100 2230			3.9 3.8	3.1 3.0	3.8		3.9 4.0				3.5 3.6			
2400	3.9	3.9	3.8	3.0	3.8	3.8	4.0	4.0	4.0	3.5	3.6	3.5	3.6	3.6
DATE	2-24	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8
0130 0300	3.6	3.6	3.6	3.5	3.5	3.5	3.4	3.5	3.4	3.5	3.5	3.4	3.4	3.4
0430														
0600 0730														3.4
0900									3.4					3.5
1030 1200								3.5	3.5					
1330 1500						3.5 3.4		3.4			3.5			
1630						3.4					3.4			
1800 1930														
2100 2230														
2400	3.6	3.6	3.6	3.5	3.5	3.4	3.4	3.4	3.5	3.5	3.4	3.4	3.4	3.5

LAKE MICHIGAN, STATION 38, 30 m. continued.

DATE	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
0130 0300	3.5	3.5	3.5	3.4	3.4	3.3	3.3	3.4	3.4	3.4	3.4	2.8	2.8	2.9
0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930			3.5 3.4		3.4 3.3		3.3 3.4				3.4 3.3 3.2 3.1 3.0 2.9 2.8 2.7		2.8 2.9	
2100 2230														
2400 DATE	3.5 3-23	3.5	3.4 3-25	3.4	3,3	3.3	3.4	3.4	3.4	3.4	2.7	2.8	2.9	2.9
TIME		3-24		3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5
0130 0300 0430 0600 0730	2.9 2.8 2.7 2.7 2.6	2.5 2.5 2.6	2.8	2.8	2.8 2.8 2.7	2.7	2.7	2,6	2.6	2,6	2.7	2.7	2.7	2.5
0900 1030 1200	2.5	2.6 2.7					2.7							
1330 1500 1630 1800 1930		2.7 2.8											2.7 2.6	
2100 2230										2.6				
2400	2.5	2.8	2.8	2.8	2.7	2.7	2.6	2.6	2.6	2.7	2.7	2.7	2.6	2.5
DATE TIME	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19
0130 0300 0430 0600	2.4	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.0 2.0 1.9	1.9	1.9	1.9
0730 0900 1030 1200 1330 1500 1630				2.3 2.2						2.1 2.0				
1800 1930 2100 2230 2400	2.4	2.3	2.3	2.2	2.2	2.2 2.1 2.1	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9

LAKE MICHIGAN, STATION 38, 30 m. continued.

DATE	4-20	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3
TIME 0130 0300	1.8	1.8	1.9	2.2	2.2	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	2.0
0430 0600 0730						1.9	1.9							
0900 1030 1200			1.9			1.8	2.0		2.0					
1330 1500 1630 1800		1.8 1.9	2.0		2.2	1.8			1.9				1.9 2.0	
1930 2100 2230			2.1		2.1 2.0 1.9	1.9								
2400	1.8	1.9	2.2	2.2	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0
DATE	5-4	5-5	5-6	5-7	5-8	5-9	5-10	5-11	5-12	5-13	5-14	5-15	5-16	5-17
TIME 0130 0300 0430	2.0	2.0												
0600 0730 0900														
1030 1200 1330 1500														
1630 1800 1930														
2100 2230 2400	2.0	2.0	DAMA N	m a										
2400	2.0	2.0	DATA E	• פתוו										

LAKE MICHIGAN - STATION 38. Depth 60 m. Start 2 December 1963, 1200 CST; end 3 May 1964, 1635 CST. Instrument serial no. 311, film record 20,175. Initial cal. 0°C; final cal. -0.5°C.

DATE TIME	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15
0130		7.0	7.0	6.9	6.4	6.1	6.6	6.8	6.1 5.8	6.1	6.1	6.1	5.9	5.7
0300 0430					6.2 6.1	5.8 5.2	6.6		5.8			6.1		
0600 0730		7.0 6.9		6.9 6.1		4.8	6.1	6.8 6.7	6.0			6.0		
0900 1030				5.5 5.4		4.7	6.1 6.2	6.1						
1200	6.8			6.2	6.1	5.9	6.9	5.9					5.9	
1330 1500	6.8 6.9		7.0 6.9	6.4	6.0 5.8	6.2 6.7		5.9				6.0 5.9	5.8	
1630 1800		6.9		6.8 6.7	5.8		6.9 6.1	5.8 5.8	6.0				5.8	
1930	6.9	7.0		6.6	5.9	6.7	6.3	5.9	6.1				5.7	
2100 2230	7.0			6.5	6.0 6.1	6.1 6.2	5.4 5.6	6.1						
2400	7.0	7.0	6.9	6.5	6.1	6.4	6.7	6.1	6.1	6.1	6.1	5.9	5.7	5.7
DATE	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
0130	5.7	5.7	5.7	5.7	5.6	5.4	5.3	5.3	5.2	5.0	5.0	5.0	5.0	5.0
0430				5.7	5.6				5.2					
0600 0730				5.6	5.5			5.3 5.2	5.1					
0900 1030														
1200									5.1 5.0					
1330 1500						5.4			3.0					
1630 1800					5.5	5.3								
1930 2100					5.4									
2230		F 7	5.7	5.6	5.4	5.3	5.3	5.2	5.0	5.0	5.0	5.0	5.0	5.0
2.400	5.7	5.7												
DATE TIME	12-30	12-31		1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
0130 0300	5.1	5.0	5.0	5.0	5.0	5.0	4.9	5.0 4.9	4.2	4.2	4.5 4.5	4.2	4.3	4.3 4.3
0430 0600									4.3	4.3	4.4	4.2		4.4
0730						5.0		4.9	7.7	4.5	4.4	4.3	, ,	4.3
0900 1030						4.9		4.8 4.3		4.6 4.8	4.3		4.3 4.4	
1200 1330								4.1				4.3		
1500 1630	5.1 5.0									4.8		4.2	4.4	
1800	3.0								4.4	4.7			4.3	
1930 2100								4.1	4.3 4.2	4.6 4.5				
2230 2400	5.0	5.0	5.0	5.0	5.0	4.9	4.9	4.2 4.2	4.2	4.5	4.2	4.2	4.3	4.3
						-	299-							

			-											
DATE	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26
TIME 0130 0300 0430	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.2	4.2	4.1	3.4 3.4 3.6	3.7 3.6 3.4	3.4
0600 0730 0900 1030								4.3 4.2			4.1 3.9 3.4	3.8	3.3	
1200 1330 1500 1630 1800											3.3 3.3 3.5		3.3	
1930 2100 2230 2400	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.2	4.2	4.2 4.1 4.1	3.5 3.4 3.5 3.5	3.8 3.7 3.7	3.4	3.4
									4.2		3.3	3.7		
DATE	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
0130 0300 0430	3.5	3.5	3.5	3.7	3.6	3.5	3.4	3.3	3.2	3.2 3.1	3.1	3.2 3.2 3.1	2.9	3.1 3.1 3.2
0600			3.5								3.1		3.0	• • •
0730 0900			3.6					3.3			3.2	3.1 3.0		
1030				3.7				3.2			3.4			
1200 1330				3.6			3.4 3.3				3.5 3.3			
1500			3.6		3.6		3.3				3.2			
1630 1800			3.7		3.5	3.5 3.4					3.2	3.0 2.9		
1930						3.4					3.3	2.9	3.0	
2100											3.2		3.1	
2230 2400	3.5	3.5	3.7	3.6	3.5	3.4	3.3	3.2	3.2	3.1	3.2	2.9	3.1	3.2
DATE	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23
TIME 0130	3.2	3.2	3.2		3.2	3.2	3.2	3.2	3.2	2 1	2 1	2.1	2.0	2.0
0300 0430	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.1	3.1	3.1	3.0	3.0
0600				3.2		3.2								
0730 0900				3.1		3.3						3.1 3.0		
1030												3.0	3.0	
1200 1330 1500			3.2	3.1		3.3 3.2							3.1	
1630			3.1	3.2										
1800 1930													3.1 3.0	
2100			3.1											
2230 2400	3.2	3.2	3.2 3.2	3.2	3.2	3.2	3.2	3.2	3.2 3.1	3.1	3.1	3.0	3.0	3.0

DATE	2-24	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8
0130 0300 0430	3.1	3.0	3.1	3.1	3.1	3.1 3.0	2.9	2.8	2.7	2.6	2.6	2.7	2.7	2.7
0600 0730 0900		3.0 3.1		3.1 3.2		3.0 3.1								
1030 1200 1330						3.1 3.0	2.9	2.8 2.7						
1500 1630 1800	3.1 3.0			3.2		3.0 2.9	2.8				2.6			
1930 2100 2230	0.0	2.1	0.1	3.1	2.1			0.7	2.7	2.6	2.7	0.7	0.7	0.7
2400	3.0	3.1	3.1	3.1	3.1	2.9	2.8	2.7	2.6	2.6	2.7	2.7	2.7	2.7
DATE TIME	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
0130 0300	2.7	2.5	3.2	2.9	3.0	3.2	2.8	2.5	2.9	2.9	2.6	2.7	2.8	2.8
0430 0600 0730	2.7 2.8 2.9		3,3	2.9	3.0 3.1 3.2	3.2 3.1	2.6			2.9	2.6			2.8
0900	2.7		2 2	3.1	3.3	3.1	2.6			2.8	2.7			
1030 1200			3.3 3.2	3.1	3.2		2.6 2.5	2.5				2.7		
1330 1500	2.9		3.2	3.0				2.6 2.7		2.8		2.8		
1630 1800	2.8	2.5	3.1			3.1		2.9 3.0		2.7				2.9
1930 2100 2230	2.6 2.5	2.6 2.9 3.1	3.1 3.0			2.9		2.9		2.6				3.0
2400	2.5	3.2	3.0	3.0	3.2	2.8	2.5	2.9	2.9	2.6	2.7	2.8	2.8	3.0
DATE	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5
0130 0300 0430	3.2 3.3	3.2	3.2	3.1	3.2	3.2	3.2	3.1	3.0	3.1	3.1	3.0	3.0	3.0
0600 0730 0900 1030				3.1 3.2			3.2 3.1	3.1 3.0	3.0 3.1		3.1			
1330 1500	3.3										3.0			
1630 1800 1930	3.2		3.2 3.1											
2100 2230 2400	3.1 3.2 3.2	3.2	3.1	3.2	3.2	3.2	3.1	3.0	3.1	3.1	3.0	3.0	3.0	3.0

LAKE MICHIGAN, STATION 38, 60 m. continued.

DATE	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19
TIME 0130	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
0300	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
0430														
0600														
0730														
0900														
1030														
1330 1500					3.0									
1630					3.1									
1800														
1930														
2100														
2230														
2400	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
DATE	4-20	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3
	7 20	7 41	7 22	7 23	4-24	4-23	4-20	4-41	4-20	4-27	4-30	2-1	J-2	J-J
TIME														
TIME 0130	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.3	3.3	3.3	3.3
TIME 0130 0300														
TIME 0130 0300 0430														
TIME 0130 0300 0430 0600														
TIME 0130 0300 0430 0600 0730														
TIME 0130 0300 0430 0600										3.2				
0130 0300 0430 0600 0730 0900 1030 1200										3.2				
0130 0300 0430 0600 0730 0900 1030 1200 1330										3.2				
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500										3.2				3.3
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630										3.2				3.3
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800										3.2				3.3 3.3 Data
0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930										3.2				3.3
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800										3.2				3.3 3.3 Data

LAKE MICHIGAN - STATION 39, Depth 90 m. Start 2 December 1963, 1200 CST; end 3 May 1964, 1635 CST. Instrument serial no. 129, film record 20,176. Initial cal. Indet., final cal. 0°C.

	DATE	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12_12	12_13	12-14	12-15
	TIME							12 0		12 10	12 11	12-12	12-13	12-14	12-13
	0130		7.4	7.7	6.4	7.6	6.9	6.8	6.9	7.9	7.0	7.1	6.9	6.3	7.0
	0300		7.5	7.7		7.6	6.8	6.7	6.9		7.9	7.0	6.7		6.3
	0430		7.4	7.8		8.0	6.3		6.8	- 0	7.3		6.6		
	0600 0730		7.5	7.8 7.7		8.1	6.2	. 7	6.7	7.9	7.3	7.0	6.6	6.3	6.3
	0900		7.5	7.6		7.0 6.5	6,2	6.7 6.8	6.5 6.9	8.0 7.9	7.1 7.2	6.9	6.3 6.2	6.4	6.6
	1030		7.6	7.5		6.9	6.3	7.0	6.8	7.8	7.0		0.2	6.3	6,8 7.0
	1200		7.9	7.4		6.5	6.4	6.9	7.3	7.3	6.9			6.4	6.8
	1330	7.0	7.7	7.3	6.4		6.5	6.4	7.6	7.2	6.9			6.6	6,3
	1500	7.6	7.6	7.5	6.5			6.3	7.6	7.1	7.0			6.7	7.1
	1630	7.2		7.5	7.2	6.5	6.5		7.9	7.2	7.5	6.9	6.2	6.8	7.4
	1800	7.1	7.6	7.9	8.0	6.6	6.6		8.0	7.6	8.0	6.8	6.4	7.0	7.0
	1930 2100	7.3	7.7	7.2	7.0	6.8	6.7		7.9	7.7	8.0	6.9	6.6	6.3	7.1
	2230	7.3 7.4	7.8	6.7 6.5	7.2 7.1	6.8 7.2	6.7 6.8	6.3 6.4		7.1 7.0	7.0 6.8	6.8 6.9	6.5 6.4	6.6 6.9	7.3 7.8
	2400	7.4	7.8	6.5	7.1	6.9	6.9	7.0	7.9	7.9	7.2	6.9	6.4	7.0	8.0
	DATE					12-20									
	TIME			10 10	12 17	12 20	10 01	10 00	12 23	12 27	12 23	12-20	12.21	12-20	12-23
	0130	8.0	7.0	6.5	6.7	6.6	6.5	6.4	6.4	6.3	6.1	6.1	6.1	6.1	6.0
	0300	7.9	7.2	6.6	6.3	6.6	6.4		6.3			6.0	6.0		
	0430	7.1 6.5	7.6	6.7	6.5	6.5								6.1	
	0600 0730	6.4	8,0	7.3 6.6	6.4 6.4					6.3	6.1 6.0			6.0	
	0900	6.5	8.0	0.0	6.5					0.2	6.0				
	1030	7.6	7.7		6.5						6.1				
	1200	7.7	7.3	6.6	6.6										
	1330	7.5	7.1	6.5	6.6					6.2					
	1500	7.7	7.5	6.6	6.4			6.4		6.1	6.1		6.0		
	1630 1800	8.0	8.0	6.4	6.6			6.3			6.2		6.1		
	1930		8.0	6.7 6.8				6.4				6.0 6.1			
	2100	8.0	7.4	6.7								0.1			
	2230	7.0	6.6	6.8											
2	2400	6.7	6.6	6.7	6.6	6.5	6.4	6.4	6.3	6.1	6.2	6.1	6.1	6.0	6.0
	DATE	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
	TIME 0130	6.0	5.9	5.9	6.0	6.0	6.0	6.0	7.0	6.7	6.8	6.7	6.6	6.6	6.7
	0300	6.0	3.3	3.9	0.0	0.0	0.0	0.0	7.0	6.8	6.9	6.5	0.0	0.0	0.7
	0430	5.9					6.0	6.0	6.9	6.9	7.0	6.6			6.7
	0600						5.8	5.9	6.8	7.0	6.9	6.5			6.6
	730						5.9		6.7		7.0	6.5			6.5
	0900						5.8		6.6		7.1	6.4			
	1030						5.7		6.4			6.4			
	1200 1330								6.3			6.5		6.6 6.7	6.5
	1500								6.1		7.1	6,5		0.7	6.6
	1630								6.1		7.0	6.4			
-	1800					6.0		5.9	6.3	7.0	6.9	6.4			6.6
	1930					6.1	5.7	6.0	6.5	6.8		6.5		6.7	6.7
	2100						5.9		6.6	6.6				6.8 6.8	
	2230 2400	5.9	5.9	5.9	6.0	6.1	5.9	6.0	6.6	6.4 6.6	6.9	6.5 6.6	6.6	6.7	6.7
		5.5	2.5	2,7		0,2	5.5		000	0.0		0.0	000		007

DATE	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-21	1-23	1-24	1-25	1-26
TIME 0130 0300	6.7	6.7	6.7	6.5	6.6	6.5	6.5	6.4	6.3	6.6	6.3	5.7	6.0	5.9
0430 0600 0730 0900			6.7 6.6	6.5 6.6	6.5			6.3	6.5 6.5 6.6	6.5	6.3 6.2 6.1 6.1	5.7 5.8 5.9 6.0		5.9 6.0 5.9
1030 1200 1330 1500 1630								6.3 6.2		6.4 6.4 6.3	5.9 5.7 5.7 5.8		6.0 5.9 5.8	
1800 1930 2100 2230			6.6 6.5				6.5 6.4	6.2			5.9 5.7		5.9 5.9 6.0	
2400	6.7	6.7	6.5	6.6	6.5	6.5	6.4	6.3	6.6	6.3	5.7	6.0	6.0	5.9
DATE	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
TIME 0130 0300 0430	5.9	5.8	5.9	6.0 5.9 6.0	6.0	6.0 5.9	5.7	5.5	5.5 5.5	5.5 5.5 5.4	5.6 5.6	5.7 5.7 5.6	5.1 5.1 5.2	5.6 5.6
0600 0730 0900 1030 1200		5.8 5.9		5.9		5.9 5.8	5.7 5.6		5.6 5.6 5.5	5.4 5.5	5.7 5.8 5.9 6.0	5.4 5.4 5.3	5.2 5.3 5.3 5.4	5.7
1330 1500 1630 1800 1930	5.9 5.8		5.9	5.9 6.0		5.8 5.7	5.6 5.7 5.7	5.5 5.4	5.5 5.6 5.5 5.4 5.3	5.5 5.6		5.3 5.4 5.4 5.3	5.4 5.5	5.7
2100 2230 2400	5.8	5.9	6.0	6.0	6.0	5.7 5.6 5.6	5.6 5.6 5.5	5.4 5.5	5.4 5.5 5.5	5.6	6.0 5.8	5.3 5.1 5.1	5.5 5.6 5.6	5.6
DATE	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23
TIME 0130 0300 0430	5.6	5.7	5.6 5.4 5.5	5.5	5.6 5.6 5.7	5.7 5.8	5.7 5.6 5.5	5.6 5.6 5.5	5,5	5.3 5.2 5.1	5.3	5.5	5.4	5.5 5.4
0600 0730 0900 1030 1200	5.6 5.7		5.5 5.4	5.6		5.8 5.7	5.5 5.6		5.5 5.4	5.1 5.0 5.0 5.1		5.5 5.4	5.4	5.4 5.5 5.5 5.4 5.4
1330 1500 1630 1800 1930		5.7	5.5	5.6 5.5 5.6	5.7 5.6				5.4 5.3	5.2 5.3	5.3 5.4		5.5	5.5 5.4
2100 2230 2400	5.7	5.6	5.5	5.6	5.6 5.7 5.7	5.7	5.6	5.5	5.3	5.3	5.4	5.4	5.5	5.4

-304-

DATE	2-24	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8
TIME 0130	5.4	5,2	5.3	5.3	5.5	5.2	5.3	5.4	5.1	4.7	4.7	5.1	5.3	5.1
0300	5.3	3,2	3.3	3.3	5.5	5.1		5.3		4.8	7	5.1	5.5	
0430 0600	5.3	5.2				5.1 5.3	5.3 5.4	5.0	5.1 5.0	4.9	4.7	5.2	5.3	5.1 5.0
0730	5.2	5.3				5.4	5.5		5.0		4.8	5.2	5.4	3.0
0900		5.4		5.3		5.5				4.9	4.9	5.3		
1030 1200		5.4 5.5		5.4 5.4		5.5 5.4				5.0	5.0			
1330				5.5		5.4	5.5		5.0				5.4	
1500 1630		5.5 5.4			5.5	5.1 5.2	5.4	5.0	4.9 4.8	5.0			5.3	5.0
1800		5.3			5.4	5.4	5.4	5.1	4.7	4.9				4.9
1930 2100		5.2 5.3		5.5	5.3	5.2 5.3	5.3			4.9 4.8		5.3 5.4		4.9
2230		2.3		5.4		5.2				4.7		J.4		4.8
2400	5.2	5.3	5.3	5.5	5.3	5.2	5.3	5.1	4.7	4.7	5.0	5.4	5.3	4.8
DATE	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
TIME 0130	4.8	4.9	5.5	5.0	5.3	5.4	5.6	4.6	5.5	5.3	5.1	5.1	5.2	5.2
0300	4.9	4.7	5.6	5.1	5.5		5.6	4.7	5.4	5.3	5.1			
0430	5.0 5.3	4.5 4.4		5.2 5.3	5.6		5.2 5.0	4.7 4.8	5.4	5.4	5.0			
0730	5.5	4.4		5.4			4.9	4.9		5.4				
0900		, ,	5.6				4.9 5.1	5.0 5.1		5.5 5.4		5.1		
1030 1200		4.4 4.3	5.5 5.4	5.4			4.9	5.3		5.2		5.2		
1330		4.3	5.3	5.3	5.6	5.4	4.8	5.4		5.0				
1500 1630	5.3 5.2	4.4 4.3			5.4 5.6	5.5 5.5	4.7		5.4	5.2 5.2	5.0			5.2
1800	5.1	4.3	5.3		5.6		4.7		5.5	5.0	5.1	5.2		5.3
1930 2100	5.0 4.9	4.7 4.8	5.1 5.0		5.5 5.4	5.5 5.4	4.6 4.7		5.5 5.4		5.2	5.1 5.2		5.3
2230	5.0	5.1	5.0			5.4	4.6		5.4	5.0	5.2			5.4
2400	5.0	5.4	5.0	5.3	5.4	5.6	4.6	5.4	5.5	5.1	5.1	5.2	5,2	5.5
DATE	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5
TIME 0130	5.4	5.5	5.3	5.1	5.3	5.3	5.2	5.1	5.2	5.2	5.2	5.1	5.2	5.1
0300	5.4	5.5	5.3				5.2				5.1	5.0		5.0
0430 0600	5.5	5.6 5.6	5.4 5.4		5.3 5.2		5.0							
0730		5.5	5.2		3.2									
0900 1030		5.5	5.2 5.3				5.0 5.1		5.2					
1200		5.3	5.3				5.1		5.3	5.2		5.0		
1330	5.5	5.2	5.2	c 1			5.0 5.0		5.4 5.3	5.3	5.1	5.1		
1500 1630	5.4	5.2		5.1 5.2			5.1		٠.٠		5.2			
1800	- ,	5.3		5.3				5.1		5.3	5.2 5.1			
1930 2100	5.4 5.3	5.3 5.4	5.2			5.3		5.2		5.2	2.1			
2230	5.4	5.3 5.3	5.1	5.3	5.2 5.3	5.2 5.2	5,1	5.3 5.3	5.3	5.2	5.1	5.1	5.2	5.0
2.400	5.5													

LAKE MICHIGAN, STATION 38, 90 m. continued.

DATE	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19
0130 0300	5.0	5.1	5.2	5.0	5.0	5.0								
0430														
0600			5.2											
0730			5.1											
0900	_													
1030	5.0													
1200	5.1		5.1											
1330			5.0											
1500														
1630						5.0								
1800						4.7								
1930						4.2								
2100						3.9								
2230						3.1								
2400	5.1	5.1	5.0	5.0	5.0	2.8	Recor	d shor	t. Ran	out	f tape	•		

LAKE MICHIGAN - STATION 38, Depth 120 m. Start 2 December 1963, 1200 CST; end 3 May 1964, 1635CST.

2230 5.0

2400

5.3 5.8 5.1 5.0 5.0 5.1 4.9 6.2 5.1 5.1 4.9 5.0 4.9 5.0

Instrument serial no. 286, Film record 20,177. Initial cal. -1.5°C; final cal. +1.5°C.

DATE 12-2 12-3 12-4 12-5 12-6 12-7 12-8 12-9 12-10 12-11 12-12 12-13 12-14 12-15 TIME 0130 5.3 5.8 5.1 5.1 5.0 5.1 5.0 6.2 5.1 5.2 4.9 5.0 5.0 0300 5.1 0430 5.3 5.0 5.2 5.1 0600 5.5 5.8 5.1 0730 5.0 5.6 5.7 5.0 4.9 4.8 0900 5.6 1030 5.7 5.1 6.2 4.9 1200 5.0 5.8 5.7 5.0 5.0 5.0 6.1 4.9 1330 5.6 5.1 5.1 6.1 5.0 1500 5.5 5.2 5.8 5.0 1630 5.3 5.5 5.5 4.9 1800 5.1 5.0 5.8 5.2 1930 4.9 5.8 5.1 5.0 2100 6.0 4.9

6.2

LAKE MICHIGAN, STATION 38, 120 m. continued.

DATE	12-16	12-17	12-18	12-19	12-20	12-21.	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
TIME														
0130	5.0	5.0	5.0	5.0	6.0	6.0	5.8	5.3	5.9	5.7 5.7	5.7	5.6 5.7	5.7	5.8
0300	5.2						5.9	5.3		5.6		5.7		
0430 0600	5.0	5.0					150	5.4	5.9	5.6				5.8
0730		5.2					5.9	5.6	5.8	5.5				5.7
0900		5.2	5.0	5.0			5.8	5.8	5.8	5.5				3.7
1030		5.1	5.1	5.2			5.8	5.9	5.7	5.4				
1200		5.0	5.2	5.1			5.6	5.8	J.,	5.4			5.7	
1330		4.9	5.1	5.8			5.3	5.5	5.7	5.5			5.8	
1500			5.2	5.6			5.2	5.2	5.6	5.6				
1630			5.3	5.5			5.1	5.3	5.5	5.7				
1800			5.5	5.8				5.7	5.7		5.7			
1930		4.9	5.3	6.0			5.1	5.8			5.6			
2100		4.8	5.2	5.8			5.2	5.8			5.6			
2230			5.1	6.0			5.3	5.9			5.5			
2400	5.0	4.8	5.0	6.0	6.0	6.0	5.3	5.9	5.7	5.7	5.5	5.7	5.8	5.7
										1 .				
DATE	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
TIME						1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
TIME 0130	12-30 5.7	12-31 5.6	5.3	5.3	1-3 5.4	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
TIME 0130 0300						1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
TIME 0130 0300 0430		5.6				1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
TIME 0130 0300 0430 0600		5.6				1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
TIME 0130 0300 0430 0600 0730	5.7	5.6				1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
TIME 0130 0300 0430 0600 0730 0900	5.7	5.6				1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
0130 0300 0430 0600 0730 0900 1030	5.7	5.6			5.4	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
TIME 0130 0300 0430 0600 0730 0900 1030 1200	5.7	5.6			5.4	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330	5.7	5.6	5.3		5.4	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500	5.7	5.6	5.3		5.4	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11_	1-12
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330	5.7	5.6	5.3		5.4	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630	5.7	5.6	5.3		5.4	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800	5.7	5.6	5.3	5.3	5.4 5.5	1-4		1-6	1-7	1-8	1-9	1-10	1-11	1-12
TTME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930	5.7	5.6 5.6 5.5	5.3	5.3	5.4 5.5 5.5 End o	f Reco			1-7	1-8	1-9	1-10	1-11	1-12

LAKE MICHIGAN - STATION 38, Depth 150 m. Start 2 December 1963, 1200 CST; end 3 May 1964, 1635 CST. Instrument serial no. 282, Film record 20,178. Initial cal. Indet., final cal. 0°C.

DATE	12-2	12-3	12-4	12-5	12-6	12-7_	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15
TIME 0130 0300 0430		3.7	4.5 4.5 4.4	3.7 3.6	3.8	3.8 3.8 3.7	3.7	3.7	4.5 4.4 4.3	3.7 3.7 3.6	3.7	3.7	3.5	3.5
0600 0730		3.7	4.3			3.7			4.2 4.2 4.3			3.7		
0900 1030 1200		4.1 4.2 4.3	4.3 4.1 4.0		3.8 3.7	3.8 3.7			4.3 4.4			3.6		
1330 1500		4.3	4.0 4.0 3.9		3.7	3.7			4.0 3.9			3.6 3.5		
1630 1800		4.3 4.2	3.8	3. 3.7	3.7 3.8	3.8		3.7	3.8			3.3		
1930 2100	3.8 3.7	4.2	3.7	3.7	3.9			3.8						
2230 2400	3.7	4.3	3.7	3.8	3.9	3.8	3.7	4.1	3.8 3.7	3.6	3.7	3.5	3.5	3.5 3.6
DATE	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29
TIME 0130	3.7	3,6	3.6	3.6	3.9	4.6	3.7	3.7	4.6	3.7	3.9	4.3	4.3	4.3
0300	3.6				4.2	4.5	3.7		4.6		4.0	4.2		
0430	3.5	2.6			4.2	4.5	3.6		4.5		4.0	4.0		
0600 0730		3.6 3.7			4.4	4.4			4.1 3.7		4.2	3.9		
0900		3.8			4.7	4.2	3.6		3.6		4.3			
1030		3.8			4.5	4.2	3.7							
1200		3.7	3.6		4.2	4.3					4.3	3.9		
1330			3.7	3.6	4.3	4.4					4.4	4.0		
1500				3.7	4.4	4.3				3.7				
1630					4.6	4.3				3.8				
1800 1930	3.5 3.6				4.7	4.1 4.0		3.7 3.9		3.8		4.0 4.1		
2100	3.0	3.7		3.7		3.8		4.5	3.6	3.9	4.4	4.2		
2230		3.6		3.8		3.7		4.6	3.7	3.7	4.3	***		
2400	3.6	3.6	3.7	3.9	4.7	3.7	3.7	4.6	3.7	3.9	4.3	4.2	4.3	4.3
DATE	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12
0130	4.1	4.0	4.0	4.1	4.2	4.1	4.1	4.0	3.9	4.0	3.9	3.8	4.0	4.1
0300		4.1	4.1		4.2	4.0	4.1		4.0			3.9		
0430					4.1		4.0	4.0				3.9		
0600	4.1			4.1				3.9				4.0		4.1
0730	4.0	4.1		4.0						4.0				4.0
0900	4.1	4.0			4.1			3.9	4.0	4.1				
1030	4.0	4.0			4.2			3.8 3.5	4.1					
1200 1330	4.0	4.1						3.3	4.1 4.0		3.9			
1500	4.1	7.1		4.0				3.4	4.0	4.1	3.8			
1630		4.1		4.1				3.5		4.0				
1800		4.0		4.1				3.5	4.0					
1930				4.2		4.0		3.6	3.9					
2100	4 1		4.1			4.1		3.7	3.9	4 0	3.8			
2230 2400	4.1 4.0	4.0	4.0 4.1	4.2	4.2	4.1	4.0	3.8 3.8	3.8 3.9	4.0 3.9	3.9 3.8	4.0	4.0	4.0
			/					3.0	3.7	3.7	3.0			

-308~

DATE TIME	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26
0130 0300	4.0	4.0	4.0	4.0	3.9	3.9	3.9	3.9	3.8 3.9	4.0	3.7	3.1	3.3	3.4 3.3
0430 0600 0730 0900 1030								3.9 3.8 3.8 3.7 3.6	3.9	4.0 3.9	3.7 3.6 3.5 3.3	3.1 3.2	3.3 3.4 3.4 3.5	3.3
1200 1330 1500 1630								3.5		3.9 3.8	3.3		3.3	3.2
1800 1930 2100 2230			4.0 3.9	4.0 3.9				3.4 3.5 3.5 3.6		3.8 3.7	3.4 3.3		3.5 3.4	3.2
2400	4.0	4.0	3.9	3.9	3,9	3.9	3.9	3.7	4.0	3.7	3.1	3.2	3.4	3.1
DATE	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
0130 0300	3.1	3,1	3.1	3.1	3.2	3.3	3.1	3.0	3.0	2.9	3.0 3.1	3.3 3.2	3.1 3.0	3.0
0430 0600 0730 0900 1030		3.1			3.2 3.3	3.3 3.2					3.2	3.1 3.0	3.1 3.2	
1200 1330 1500 1630							3.1 3.0			2,9	3.4 3.6 3.5	3.0 2.9 3.0	3.2 3.0	
1800 1930 2100 2230		3.0 3.1		3.1 3.2		3.2 3.1			3.0	3.0	3.5 3.4 3.4 3.3	3.1	3.0 3.1 3.0	
2400	3.1	3.1	3.1	3.2	3.3	3.1	3.0	3.0	2.9	3.0	3.3	3.1	3.0	3.0
DATE	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23
0130 0300 0430 0600 0730 0900	3.0	3.0	3.0	3.3 3.3 3.2	3.0	3.1	3.1 3.1 3.0	3.0	3.1	2.8 2.7 2.6 2.5 2.7 2.8	3.0	3.0	3.0	3.0
1030 1200 1330 1500 1630			3.0 3.1	3.1 3.1 3.0				3.0 3.1	3.1	2.9 2.9 2.8 2.7 2.5		3.0		
1800 1930 2100 2230 2400	3.0	3.0	3.1 3.3	3.0	3.0	3.1	3.0	3.1	3.0 3.0 2.9 2.9 2.8	2.6 2.8 2.9 3.0 3.0	3.0	2.9 3.0 3.0	3.0	3.0 2.9 2.9

DATE	2-24	2-25	2-26	2-27	2-28	2-29	3-1_	3-2	3-3	3-4	3-5	3-6_	3-7	3-8
TIME 0130 0300 0430 0600 0730	2.9 3.0	3.0	3.0	3.0 3.0 2.9	3.0	2.9	3.0 3.0 2.9	3.0	2.9	2.6	2.1 2.0	2.1 2.2 2.3	2.6	2.6 2.6 2.5
0900 1030 1200 1330 1500 1630 1800 1930	2.9 2.7 2.6 2.6 2.8 2.9 3.0			2.9	3.0 2.9	2.9 3.0	2.9	3.0 2.9	2.9 2.8 2.7 2.6 2.5	2.6 2.5 2.4 2.4	2.0	2.3 2.4 2.4 2.5		2.5
2100 2230 2400	3.0	3.0	3.0	3.0	2.9	3.0	3.0	2.9	2.4 2.5 2.6	2.3 2.2 2.1	2.1	2.6	2.6	2.2 2.1 2.1
DATE	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22
71ME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800	2.1 2.3 2.4 2.5 2.6 2.6 2.5 2.3 2.1	2.2 2.2 2.1 2.1 2.2 2.2 2.3 2.3	2.9 2.9 2.8 2.7	2.8 2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9 2.9 2.8	2.8 2.7 2.6 2.4 2.6 2.7 2.7 2.8 2.8 2.6 2.5	2.5 2.5 2.6 2.6 2.5 2.5 2.4 2.5 2.6 2.7 2.8
1930 2100 2230	2.1	2.4 2.8 2.9	2.5 2.4 2.5										2.4	
2400	2.2	2.9	2.7	2.9	2.9	2.9	2.8	2.9	2.9	2.9	2.9	2.8	2.5	2,8
DATE TIME	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5
0130 0300	2.8	2.9	2.8	2.8	2.6	2.4	2.5	2.6	2.6	2.6	2.4	2.4	2.2	2.3
0430 0600 0730		2.9		2.8 2.7 2.6	2.6		2.7 2.8 2.7					2.4		2.3
0900 1030 1200 1330		2.8		2.6 2.5	2.5		2.7 2.6 2.7				2.3	2.3 2.2	2.2	2.4 2.5 2.5
1500 1630 1800 1930 2100	2.8 2.9			2.5 2.4 2.5		2.4 2.5	2.7 2.6			2.6 2.5 2.4				2.6
2230 2400	2.9	2.8	2.8	2.5	2.4	2.5	2.6	2.6	2.6	2.4	2.4	2.2	2.3	2.6

LAKE MICHIGAN, STATION 38 150 m. continued.

DATE	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19
TIME											0 0		2.4	2,3
0130	2.5	2.4	2.4	2.2	2.4	2.4	2.3	2.4	2.2	2.2	2.2	2.3	2.4	2.3
0300			2.3											
0430				2.2				2.4						
0600				2.3				2.6						
0730	2.5					2.4		2.7						2.3
0900	2.6		2.3			2.3		2.7					2.4	2.2
1030			2.4										2.3	2.2
1200								2.6					2,3	
1330								2.4				2.3		
1500	2.6		2.4					2.3				2.4		
1630	2.5		2.3	2.3				2.2				2.4		
1800				2.4										
1930	2.5										2.2			
2100	2.4						2.3				2.3			
2230			2.3				2.4		2 2	2 2	2.3	2.4	2.3	2.2
2400	2.4	2.4	2.2	2.4	2.4	2.3	2.4	2.2	2.2	2.2	2.3	2.4	2.5	2.2
DATE	4-20	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	5-1	5-2	5-3
DATE TIME	4-20	4-21	4-22	4-23	4-24									
DATE TIME 0130	4-20 2.2	4-21 2.2	4-22 2,2	4-23 2,2	4-24 2.1	4-25 2.2	4-26 2.2	4-27 2.2	4-28	4-29 2.2	4-30 2.7	5-1 2.7	5-2 2.7	2.7
TIME														2.7 2.7
TIME 0130				2,2							2.7			2.7
TIME 0130 0300											2.7			2.7 2.7
TIME 0130 0300 0430				2,2							2.7			2.7 2.7
TIME 0130 0300 0430 0600				2.2							2.7 2.7 2.6			2.7 2.7
TIME 0130 0300 0430 0600 0730				2.2							2.7 2.7 2.6 2.6			2.7 2.7
TIME 0130 0300 0430 0600 0730 0900				2.2							2.7 2.7 2.6			2.7 2.7
TIME 0130 0300 0430 0600 0730 0900 1030				2.2						2.2	2.7 2.7 2.6 2.6			2.7 2.7 2.6
0130 0300 0430 0600 0730 0900 1030 1200				2.2						2.2	2.7 2.7 2.6 2.6			2.7 2.7 2.6
0130 0300 0430 0600 0730 0900 1030 1200				2.2	2.1					2.2	2.7 2.7 2.6 2.6			2.7 2.7 2.6
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800				2.2	2.1					2.2 2.3 2.4	2.7 2.7 2.6 2.6			2.7 2.7 2.6
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630				2.2	2.1					2.2 2.3 2.4 2.4	2.7 2.7 2.6 2.6			2.7 2.7 2.6
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800				2.2	2.1					2.2 2.3 2.4 2.4 2.5	2.7 2.7 2.6 2.6			2.7 2.7 2.6
TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930				2.2	2.1					2.2 2.3 2.4 2.4	2.7 2.7 2.6 2.6			2.7 2.7 2.6

LAKE MICHIGAN - STATION 40, Depth 10 m.
Start 3 December 1963, 1130 CST; end 19 April 1964, 1552 CST.
Instrument serial no. 143, Film record 20,204. Initial cal. +0.5°C, final cal. 0°C.

DATE	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16
TIME 0130 0300		6.8	6.8	7.1	7.1	7.0	7.1	7.1	7.0	7.0	6.8	5.8 5.9	6.3	6.3
0430 0600 0730 0900			6.8	7.1 7.0							6.8 6.6	6.1	6.3 6.4	6.3 6.2
1030 1200 1330	6.5		6.9 6.9 7.0			7.0 7.1				7.0	6.6 6.4 6.4			
1500 1630 1800 1930	6.5 6.6 6.6 6.7		7.0 7.1	7.0 7.1	7.1 7.0					6.9 6.9 6.8	6.3 6.3 5.8 5.8	6.1 6.2		
2100 2230 2400			7.1	7.1		- 1	7.1		7.0	6.8	5.7	6.2 6.3		6.2
	6.7	6.8			7.0	7.1		7.1			5.7		6.4	
DATE TIME	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26		12-28	12-29	12-30
0130 0300 0430	6.3	6.2	6.3	6.2	6.0 6.0 5.9	5.8	5.5	5.6 5.6	5.5	5.6	5.6	5.3	5.3	5.3
0600 0730			6.3 6.2		5.8		5.5	5.5						
0900 1030 1200	6.3				5.8 5.7	5.8 5.7	5.6							
1330 1500 1630	6.4 6.3			6.2	5.7 5.8	5.7 5.6 5.6					5.6 5.5			
1800 1930	6.3 6.2	6.2		6.1 6.1	J.0	5.5								5.3 5.2
2100 2230 2400	6.2	6.3	6.2	6.0	5.8	5.5	5.6	5.5	5.5	5.6	5.5 5.4 5.4	5.3	5.3	5.2
DATE	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13
TIME 0130 0300	5.2	5.2	5.2	5.3	5.3	5.2	5.1	5.1	5.0	5.2	5.2	5.2	5.1	5.1
0430 0600			5.2 5.3			5.2	5.1		5.0			5.2 5.1		
0730 0900 1030					5.3 5.2	5.3 5.4	5.0		5.1 5.2					
1200 1330 1500					5.2	5.4 5.3 5.2								5.1
1630 1800					5.1									5.2
1930 2100 2230						5.2 5.1		5.1 5.0						
2400	5.2	5.2	5.3	5.3	5.1	5.1	5.0 -312-	5.0	5.2	5.2	5.2	5.1	5.1	5.2

DATE	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27
TIME 0130 0300	5.2	4,9	4.9	4.9	5.0	5.0	5.0	4.7	4.8	4.7	4.7	4.7	4.7	4.7
0430 0600 0730 0900 1030	5.2 5.1 5.1			4.9 5.0		5.0			4.8 4.7					
1200	5.0			3.0		4.9			4.7					
1330 1500 1630 1800 1930	5.0 4.9					4.9 5.0	5.0 4.9 4.9 4.8	4.7 4.8						4.7 4.6
2100														
2230 2400	4.9	4.9	4.9	5.0	5.0	4.8	4.8	4.7	4.7	4.7	4.7	4.7	4.7	4.6
DATE	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10
TIME 0130 0300	4.6	4.7	4.7	4.6	4.6	4.6	4.6	4.6	4.5	4.5	4.4	4.4	4.4	4.6
0430 0600 0730 0900 1030	4.6 4.7	4.7 4.6		4.6 4.7						4.5 4.4	4.4		4.4 4.5	
1200 1330 1500								4.6 4.5					4.5 4.6	
1630 1800 1930		4.6 4.7				4.6 4.7								4.6 4.7
2100 2230 2400	4.7	4.7	4.7	4.7	4.6	4.7 4.6 4.6	4.6	4.5	4.5	4.4	4.5 4.4 4.4	4.4	4.6	4.7
DATE	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24
0130 0300 0430 0600	4.7	4.6	4.6 4.6 4.5 4.5	4.3	4.1	4.1 4.1 4.0	3.9	3.9	4.0	4.0	4.1	4.1	4.0	4.0
0730 0900 1030 1200	4.7 4.6	4.6 4.7	4.4 4.4 4.3	4.3 4.2		4.0 3.9		3.9 4.0	4.0 3.9			4.1 4.0		
1330 1500 1630 1800 1930 2100				4.2 4.1						4.0 4.1				
2230 2400	4.6	4.7	4.3	4.2	4.1	3.9	3.9	4.0	3.9	4.1	4.1	4.0	4.0	4.0

DATE	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9
TIME 0130 0300 0430 0600	4.0	4.0	3.9	3.8	4.0	3.9	3.9 3.9 3.8	3.9	4.0	4.1	4.2	4.1	4.1	4.1
0730 0900 1030				3.8 3.9	4.0		3.8	3.9 4.0	4.0					
1200 1330 1500 1630		4.0 3.9			3.9		3.9	4.0	4.1	4.1 4.2			4.1 4.0	
1800 1930 2100 2230			3.9 3.8	3.9 4.0										
2400	4.0	3.9	3.8	4.0	3.9	3.9	3.9	4.0	4.1	4.2	4.2	4.1	4.0	4.1
DATE	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23
0130 0300	4.1 4.1	4.1	4.0	4.1	4.1	4.2	4.1	4.0	4.1	4.0	4.0	4.0	3.2	3.3
0430 0600 0730 0900 1030	4.0				4.1 4.2	4.2 4.1			4.1 4.0		4.0 3.9	4.0 3.8 3.8	3.2 3.3	2.2
1200 1330 1500 1630			4.0 4.1	4.1 4.0			4.1 4.0	4.0 4.1	4.0 3.9		3.9 4.0	3.3 3.3 3.2		3.3 3.2
1800 1930 2100 2230	4.0 4.1	4.1 4.0		4.0 4.1										
2400	4.1	4.0	4.1	4.1	4.2	4.1	4.1	4.1	3.9	4.0	4.0	3.2	3.3	3.2
DATE TIME	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6
0130 0300 0430 0600 0730	3.3	3.2	3.3	3.3	3.3 3.3 3.2 3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
0900 1030 1200 1330		3.2	3.3 3.4		3.1 3.1 3.0									
1500 1630 1800 1930 2100	3.3 3.2	3.3	3.4 3.3											
2230 2400	3.2	3.3	3.3	3.3	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

LAKE MICHIGAN, STATION 40,10 m. continued.

DATE	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20
TIME														
0130	3.0	3.0	2.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
0300														
0430														
0600														
0730														
0900			2.9											
1030			3.0											
1200														
1330														
1500													3.0	
1630													End o	f
1800													Recor	
1930		3.0												
2100		2.9												
2230														
2400	3.0	2.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		

LAKE MICHIGAN - STATION 40, Depth 22 m. Start 3 December 1963, 1130 CST; end 19 April 1964, 1552 CST. Instrument serial no. 207, Film record 20,206. Initial cal. 0°C, final cal. -0.6°C.

	THE CT ON	iene se	LIGI I	0. 207	, riii	recor	u 20,2	00 - 111	LLIAI	car. 0	C, 111	iar ca.	10.	J C.
DATE	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16
TIME														
01.30		6.1	6.0	6.3	6.2	6.3	6.2	6.1	6.1	5.9	5.3	5.4	5.5	5.6
0300											5.2	5.4		
0430							6.2		6.1	5.9	5.1	5.5		
0600			6.0	6.3			6.1		6.0	6.0	5.1	5.5	5.5	
0730			6.1	6.4		6.3	6.1			6.0	5.2	5.6	5.6	
0900						6.2	6.0			5.9				
1030														
1200	6.0						6.0				5.2			
1330							6.1			5.9	5.4			
1500		6.1	6.1							5.8				
1630		6.0	6.2				6.1			5.7		5.6		
1.800			6.2	6.4			6.0			5.6	5.4	5.5		
1.930	6.0		6.3	6.3	6.2					5.5	5.3	5.6		
21.00	6.1			6.3	6.3					5.5		5.6		
2230				6.2			6.0			5.4		5.5		
2400	6.1	6.0	6.3	6.2	6.3	6.2	6.1	6.1	6.0	5.3	5.3	5.5	5.6	5.6

DATE TIME	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30
0130 0300	5.6	5,6	5.4	5.2	5.1	5.2	5.2	5.1	5.0	4.9	4.8	4.9	4.4	4.8
0430 0600 0730 0900		5,6			5.1 5.0			5.1	5.0	4.9				
1030 1200		5.5			5.0			5.0	4.9	4.9		4.9 4.8		
1330 1500					5.1						4.8		4.4 4.5	
1630 1800 1930			5.4 5.3				5,2		4.9 5.0		4.9	4.8	4.5 4.6	
2100 2230		5.5 5.4	3,3	5.2 5.1	5.1 5.2		5.1		5.0 4.9			4.7 4.6	4.6 4.7	
2400 DATE	5,6 12-31	5.4	5.3 1-2	5.1	5.2	5.2	5.1	5.0	4.9	4.8	4.9	4.4	4.7 1-12	4.8
TIME	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13
0130 0300	4.8	4.9	4.8	4.7 4.5	4.4	4.3 4.3	5.0	4.9	4.6	4.5	4.5	4.4	4.1	4.3
0430 0600 0730			4.6 4.5 4.5	4.4 4.3 4.3	4.4 4.3	4.2	5.0 4.9					4.4 4.3	4.1 4.0	
0900 1030			4.4 4.3	4.4	4.3	4.2 4.3	4.9 4.8		4.6 4.5					
1200 1330 1500			4.2	4.3	4.2	4.4 4.5 4.5	4.8 4.9		4.5 4.4			4.3	4.0	4.3 4.2
1630 1800	4.8 4.9	4.9 4.8	4.2	4.4	4.2	4.5 4.6 4.7	4.9	4.9 4.8	4,4			4.2	4.1	4.2
1930 2100			4.3 4.4		4.3	4.8 4.9		4.8 4.7			4.5 4.4		4.2	
2230 2400	4.9	4.8	4.5 4.6	4.4	4.3	5.0 5.0	4.9	4.7	4.4 4.5	4.5	4.4	4.2	4.3	4.3
DATE TIME	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27
0130 0300 0430	4.3	4.3	4.3	4.1	3.9	3.9 3.9 4.0	3.7 3.7 3.6	3.7	4.1	4.1	3.7	3.8 3.8 3.9	4.1	4.0
0600 0730				4.1 4.0			3.0	3.7 3.8			3.7	4.0 4.0		4.0 4.1
0900 1030 1200	4.3	4.3 4.2	4.3			4.0 3.9 3.9					3.8 3.8 4.0	4.1	4.1 4.0	
1330 1500	4.4		4.2			4.0 4.0				4.1	4.0		4.0	4.1
1630 1800 1930	4.4.		4.3	4.0 3.9		4.1	3.6 3.7	3.8 4.0		4.0 4.0 3.9	3.8		3.9 3.9 4.0	4.0 4.0 3.9
2100 2230	4.3 4.2	4.2 4.3	4.3			4.1 4.0	J., /	4.1		3.9	3.5 3.4		→. U	3.8 3.7
2400	4.2	4.3	4.2	3.9	3.9	3.9	3.7	4.1	4.1	3.8	3.5	4.1	4.0	3.5

DATE	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10
0130 0300	3.5	3.5	3.5	3.7 3.7	3.7	3.8	3.7	3.7	3.8	3.8	3.9	3.5 3.5	3.2	3,2
0430 0600 0730		3.5 3.4	3.5 3.6	3.8		3.8 3.7	3.7 3.8				3.9 3.8	3.4 3.4 3.3		
0900 1030 1200	3.5 3.6 3.6	3.4 3.5	3.6								3.8 3.7	3.3 3.2		
1330 1500 1630 1800	3.7		3.7	3.8 3.7	3.7 3.8		3.8 3.7	3.7 3.8		3.8 3.9				
1930 2100 2230	3.6 3.6 3.5			3.7	3.0		J. /	5.0		3,7	3,7 3,6			
2400	3,5	3.5	3.7	3.7	3.8	3.7	3.7	3.8	3.8	3.9	3.6	3.2	3.2	3.2
DATE TIME	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24
0130 0300	3.2	3.2	3.1	3.0	3.2	3.2	3.2	3.2	3.2	3.2	3.1	3.2	3,1	3.1
0430 0600 0730														3.1 3.0
0900 1030			3.1 3.0											3.0
1200 1330				3.0 3.1										
1500 1630 1800 1930				3.1 3.2						3.2 3.1	3.1 3.2	3.2 3.1		
2100 2230														
2400	3.2	3.2	3.0	3.2	3.2	3.2	3.2	3.2	3.2	3.1	3.2	3.1	3.1	3.0
DATE	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9
0130 0300	3.0	3.0	3.1	3.1	3.1	3.1	3.0	3.2	3.1	3.1	3.0	3.0	3.0	3.0
0430 0600 0730 0900		3.0 3.1				3.1 3.0	3.0 3.1	3.2 3.1		3.1 3.0		3.0 3.1		
1030 1200 1330 1500							3.1							
1630 1800 1930							3,2					3.1		
2100 2230												3.0		
2400	3.0	3.1	3.1	3.1	3.1	3.0	3.2	3.1	3.1	3.0	3.0	3.0	3.0	3.0

					•									
DATE	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23
0130 0300 0430	3.0	3.0	3.1	3.0	2.8	2.8	2.8.	2.9	2.8	2.6	2.8	3.0	3.0	2.8
0600 0730 0900		3.0							2.8 2.7	2.7	2.8 2.9		3.0 2.9	
1030 1200 1330 1500		3,1		3.0 2.9						2.7	2.9		2.9 2.8	
1630 1800 1930				2.9 2.8			2.8 2.9	2.9 2.8	2.7 2.6		3.0			2.8 2.7
2100 2230 2400	3.0	3.1	3.1	2.8	2 , 8	2,8	2.9	2.8	2.6	2.8	3.0	3.0	2.8	2.7
DATE	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6
0130 0300 0430	2.7	2.7	2.6	2.6	2.7	2.9	2.8	2,6	2.6	2.3	2,3	2.2	2.2	2.5 2.5
0600 0730 0900 1030 1200				2,6 2,7					2.6 2.5				2.2 2.3 2.3 2.4	2.4
1330 1500 1630 1800 1930		2.7 2.6			2.7 2.8	2.9 2.8	2.8 2.7		2.5 2.4 2.3		2.3		2.4 2.5	
2100 2230 2400	2.7	2.6	2.6	2.7	2,8	2.8	2.7 2.6 2.6	2.6	2.3	2,3	2.2	2.2	2.5	2.4
DATE	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20
TIME 0130 0300 0430	2.4	2.6	2,1	2.1	2.1 2.1 2.0	2.2	2.3	1.4						
0600 0730 0900 1030 1200	2.4 2.5	2.6 2.5	2.1	2.1		2.3	2.3 1.4							
1330 1500 1630 1800	2.5 2.6	2.5 2.4 2.3 2.3 2.2	2.1 2.2 2.2 2.1	2.1 2.2 2.2 2.1	2.0 1.9 1.9 2.0			1.4 End of	F					
1930 2100 2230 2400	2.6	2,2	2.1	2.0	2.0 2.1 2.1	2.4 2.5 2.4 2.4	1.4	Record						

LAKE MICHIGAN - STATION 40, Depth 30 m. Start 3 December 1963, 1130 CST; end 19 April 1964, 1552 CST. Instrument serial no. 120, Film record 20,207. Initial cal. -1.0°C, final cal. 0°C.

DATE	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16
TIME 0130 0300 0430		8,7	9.0	8.8 8.8 8.7	8.7 8.7 8.6	8.5 8.4	8.0	7.3 7.2	7.9	7.9	7.9	7.3 7.2 7.2	6.9 6.7	7.0
0600 0730 0900 1030 1200 1330	8.2 8.5		9.0 8.9	8.7 8.8 8.8 8.7 8.8	8.5 8.1 7.4 8.0 8.1 8.2	8.4 8.3 8.4 8.4 8.3 8.3	8.0 7.9 7.7 7.2	7.2 7.4 7.5 7.9			7.9 7.8 7.7 7.6 7.6 7.5	7.1 7.1 7.0 6.9	6.7 6.8 6.9	
1500 1630 1800 1930 2100 2230	8.5 8.7	8.7 8.8 8.9 9.0	8.7 8.7 8.8	8.8 8.7		8.3 11.2 11.2 8.2 8.1 8.0	7.1 7.1 7.0 7.0 7.1	7.9 7.8 7.8 7.9	7.9 7.8 7.8 8.0		7.5 7.4 7.4 7.3		6.9 7.0	7.0 6.9
2400	8.7	9.0	8.8	8.7	8.5	8.1	7.1	7.9	7.9	7.9	7.3	6.9	7.0	6.9
TIME	12-17					12-22								12-30
0130 0300 0430	6.9 6.9 6.8	6.7 6.6	6.4	6.4 6.3	6.5	6.7	6.2 6.1 6.0	6.1 6.0 6.2	5.9 6.0 6.1	6.6	6.3 6.2	6,2	6.1 6.0	6.3
0600 0730 0900 1030 1200		6.6 6.5	6.4 6.5			6.8 6.8 6.7	6.0 6.1 6.1	5.9	6.2 6.3 6.5 6.6	6.6 6.5	6.2 6.1		6.0 5.9 5.9 5.8	6.3 6.2 6.2 6.1
1330 1500 1630 1800	6.8	6.5 6.4					6.2 6.2 6.1	5,9 6,0 6,0	6.7 6.6 6.6 6.5	6.5			5.8 5.7 5.7	
1930 2100 2230	6.7		6.5 6.4	6.3 6.4	6.5 6.6 6.6	6.7 6.6 6.5	6,1 6,2 6,1	5.9	6.4 6.5 6.6	6.5 6.4 6.3	6.1 6.2	6.2 6.1	6.0 6.1 6.2	
2400 DATE	6.7 12-31	6.4 1-1	6.4 1-2	6,4 1-3	6.7 1-4	6.4 1-5	6,1 1-6	5.9 1-7	6.6 1-8	6.3 1-9	6,2 1-10	6.1 1-11	6.3 1-12	6.1 1-13
TIME														
0130 0300 0430 0600 0730 0900 1030	6.1 6.0	6.1 6.0 6.0 5.9 5.8	5.6 5.6 5.5	5.7 5.7 5.6	5.4	5.7	5.7 5.6 5.5 5.4 5.5 5.4	5.6 5.7	5.6 5.5	5.1 5.3 5.4 5.3	5.2	5.4 5.5	5.5	5.3
1200 1330 1500 1630 1800	0.0		5.6	5.6 5.5 5.5 5.4			5.4 5.5 5.6 5.6 5.5		5.5 5.6 5.6 5.5	5.2	5.2 5.3			
1930 2100 2230 2400	6.0 6.1	5.8 5.7 5.6 5.6	5.6 5.7 5.7	5.4 5.3	5.4 5.5 5.7 5.7	5.7	5.5 5.4 5.5	5.7	5.5 5.2 5.1 5.1	5.2	5.4	5.5	5.5 5.4 5.4	5.3 5.2 5.2

DATE	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27
TIME 0130 0300	5.1	5.1	5.1 5.0	4.6	4.5	4.6	4.4	4.5	4.5	4.6	4,5	4.3	4.3	4.2
0430 0600 0730 0900			4.9 4.7 4.6		4.5 4.6	4.6 4.5	4.4 4.5				4.5 4.4			4.2 4.3
1030							4,5			4.6				
1200 1330				4.6						4.5			4.3	
1500 1630				4.5									4.2	
1800 1930									4.5 4.6			4.3 4.4		
2100 2230						4.5					4.4	4.4		
2400	5.1	5.1	4.6	4.5	4.6	4.4	4.5	4,5	4.6	4.5	4.3	4.3	4.2	4.3
DATE	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10
0130 0300	4.3	4.2	4.2	4.2	4.2	4.2	4.1	4.0 4.1	4.0	4.1	4.2 4.1	3.6	3.6	3.6
0430 0600									4.0					
0730 0900									4.2 4.1					
1030 1200											4.1 4.0			
1330 1500														
1630 1800							4.1	4.1 4.0		4.1	4.0 3.9			
1930							4.0	4.0		4.2	3.8			3.6
2100 2230	4.3 4.2										3.7			3.4
2400 DATE	4,2 2-11	4.2 2-12	4.2 2-13	4,2 2-14	4.2 2-15	4.2 2-16	4.1 2-17	4.0 2-18	4.1 2-19	4.2 2-20	3.7 2-21	3.6 2-22	3.6 2-23	3.4 2-24
TIME 0130	3.3	3,4	3,6	3.4	3,2	3,2	3,2	3,4	3.4	3.2	3.1	3.0	3.0	3,2
0300	3.2		3.0	3.4	3,2	3.2	3,2		3.4	3,2	3.0	3.0	3.0	3.2
0430 0600 0730		3,4 3,5		3.4 3.3			3.2 3.3	3.4 3.5						3.1
0900 1030		3.5 3.6							3.4 3.5			3.0		
1200 1330	3.2							3.5	3.5 3.3			2.9	3.0	
1500 1630	3.3			3.3					-				3.1 3.2	
1800			3.6	3.1	3,2			3.6					3.2	
1930 2100	3.3		3.4		3.3			3.5	3.3			2.9		
2230 2400	3.4 3.4	3.6	3.4	3.1	. 33	3.2	3.3	3.4 3.4	3.2 3.2	3.2 3.1	3.0	3.0 3.0	3.2	3.1

DATE	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9
0130 0300 0430 0600 0730	3.1	2.9	2.5 2.6 2.5	2.9 3.0	3.1 3.1 3.2	3.4	3.4	3.3	3.3	3.3 3.3 3.2	3.1 3.0 3.1 3.1 3.0	3.0	2.9	2.5 2.3 2.2
0900 1030 1200 1330 1500 1630 1800 1930 2100 2230	3.2 3.1 3.1 3.0	2.9 2.8 2.9 2.9 2.7 2.5	2.5 2.4 2.4 2.5 2.5 2.7 2.8 2.9	3.0 3.1	3.2 3.3 3.3 3.4	3.4 3.3 3.3 3.4	3.4 3.3	3.3 3.4 3.4 3.3		3.2 3.1 3.0 3.1	3.0 2.8 2.8 2.9	3.0	2.9 3.0 3.0 2.9	2.2 2.1 2.1 2.2
2400		2.5	2.9	3.1	3.4	3.4	3.3	3.3	3.3	3.1	2.9	2.9	2.8	2.2
DATE TIME	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23
0130 0300 0430 0600 0730 0900 1030 1200 1330 1500	2.2 2.3 2.3 2.4 2.4 2.5	2.5	2.6 2.7 2.7 2.8	2.9 3.0 3.1	3.1	3.0 3.0 3.1	3.1 2.9	2.8	2.7 2.6 2.6 2.7	2.7	2.6 2.5 2.5 2.4 2.3 2.3 2.4	2.4	2.2 2.3	2.3
1630 1800 1930 2100 2230							2.9 2.8	2.8 2.7				2.3		2.4
2400	2.5	2.5	2.8	3.1	3.1	3.1	2.8	2.7	2.7	2.6	2.4	2.2	2.3	2.3
DATE	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6
0130 0300 0430 0600 0730	2.3	2.3 2.4	2.4	2,3	2.4	2.2 2.2 2.3 2.4	2.2	2.3	2.4	2.3	2.4	2,4	2.5	2,5
0900 1030 1200 1330 1500 1630		2.4			2,5	2.4						2.4 2.5		
1800 1930 2100 2230 2400	2.3	2,3	2.4 2.3 2.3	2.3 2.4 2.4	2.3	2.3	2.2 2.3	2.3	2.4 2.3 2.3	2.3 2.4 2.4	2.4	2.5	2.5	2.5

LAKE MICHIGAN, STATION 40, 30 m. continued.

DATE	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20
TIME												90.		
0130	2.5	2.5	2.5	2.6	2.5	2.4	2.4	2.7	2.8	2.8	2.8	2.8	2.9	
0300													2.9	
0430													2.8	
0600								2.7						
0730								2.8						
0900														
1030		2.5					2.4							
1200		2.6					2.5					2.8		
1330							2.6					2.9		
1500							2.7						2.8	
1630					2.5								End o	f
1800		2.6			2.4								Recor	d.
1930		2,5												
2100														
2230			2.6											
2400	2.5	2.5	2.5	2.5	2.4	2.4	2.7	2.8	2.8	2.8	2.8	2.9		

LAKE MICHIGAN - STATION 40, Depth 60 m. Start 3 December 1963, 1130 CST; end 19 April 1964, 1552 CST. Instrument serial no. 329, Film record 20,208. Initial cal. 0°C, final cal. 0°C.

DATE	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16
TIME														
0130		4.9	5.7	5.0	5.4	5.8	6.2	5.9	5.9	6.2	6.3	5.9	5.4	5.9
0300		6.1	4.9	4.9	5.1	5.9	6.3		5.8	6.0		5.7		
0430		6.2	5.2	5.4	5.0	6.2	5.4	5.9	5.8	6.0		5.7		5.9
0600		6.1	5.7	5.0	4.9	6.0	5.0	5.8	6.0	5.9	6.3	5.8		5.8
0730		5.9	5.8		4.6		5.4	5.7	6.1	6.1	6.2			
0900		5.9	6.4	5.0	4.5		5.1	5.4	6.1	6.0	6.1	5.8		5.8
1030		5.8	7.0	5.1	4.5	6.0	4.9	5.5	6.2	6.1		5.7		5.9
1200	4.8	6.2	6.5	5.6	4.4	6.4	4.2	5.6		6.3	6.1			
1330	5.2	6.2	5.9	5.9	4.1		4.1	5.6			6.0			
1500	5.0	6.3	5.8	5.7	5.0	6.4	4.5	5.7	6.2		6.0			
1630		6.5	5.4	5.8	6.2	5.9	5.0	5.8	6.1	6.3	6.1	5.7	5.4	
1800	5.0	7.1	5.4		6.8	5.4	4.2	5.9	6.0	6.2	6.0	5.6	5.6	
1930	4.8	7.0	5.5	5.8	6.8	5.3	4.7		6.0	6.2	5.9	5.5	5.7	
2100	4.9	7.0	5.3	5.7	6.7	5.1	5.0		6.1	6.3		5.4	5.8	5.9
2230		6.4	5.5	6.6	6.7	4.9	5.7		6.1				5.8	5.8
2400	4.9	5.9	5.0	6.0	5.9	5.2	5.8	5.9	6.2	6.3	5.9	5.4	5.9	5.8

DATE	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30
0130 0300	5.7 5.7	5.3 5.1	5.2	5.1	5.1	5.3 5.2	4.8	5.0 5.0	4.9	5.6	5.2 5.1	5.1	5.0 4.9	5,2
0430 0600 0730	5.6 5.5 5.4	5.2	F 0	5.1	F 1		4.8 4.9	4.9	4.9 5.0		5.0		4.9 4.8	5.2 5.1
0900 1030	5.4 5.5	5.2 4.9 5.0	5.2 5.3	5.0	5.1 5.2	5.2 5.1		4.8			5.0 5.1		4.8 4.7 4.6	5.1 5.0
1200 1330 1500	5.5 5.2 5.1	5.1		5.1				4.8 4.9	5.0 5.1	5.6 5.5	5.1		4.5 4.5	5.0 5.1
1630 1800	5.3				5.2	5.1 5.2			5.1 5.2 5.2	5.4	5.0	5.1	4.4	
1930 2100 2230	5.3 5.1 5.0		5.3 5.2	5.1 5.2	5.3	5.2 5.1 4.9	4.9 5.0 4.8		5.3 5.3 5.4	5.3 5.3 5.2	4.9	5.0	4.6 5.0	
2400	5.1	5.1	5.1	5.3	5.3	4.7	5.0	4.9	5.5	5.2	5.0 5.1	4.9 4.9	5.1 5.2	5.1 5.2
TIME	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13
0130 0300	5.2 5.2	5.1 5.1	4.2	4.2	4.1	4.8	4.5 4.4	4.2 4.3	4.4 4.3	4.0	4.0	4.3	4.3	4.2
0430 0600	5.1 5.1	5.0 5.0					4.3	4.5 4.7		4.0 4.1				
0730	5.0	4.9					7.2	4.8						
0900 1030	5.0						4.2	4.8 4.9	4.3	4.1 4.0				
1200 1330	5.1	4.9	4.2 4.1	4.2			4.3		4.4		4.0 4.1			
1500 1630	5.1	4.8	4.1	4.1	, ,		4.3		, ,		4.2			
1800	5.0	4.7 4.6	4.2		4.1 4.2		4.2 4.1		4.4		4.2		4.3	
1930 2100	5.0 5.1	4.5 4.4			4.4		4.2	4.9	4.1 4.1		4.3		4.2	
2230		4.3			4.7	4.8	4.1	4.8	4.0				4.2	
2400	5.1	4.3	4.2	4.1	4.8	4.6	4.1	4.6	4.0	4.0	4.3	4.3	4.1	4.2
DATE TIME	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27
0130 0300	4.2	4.2	4.0	3.3	3.3	3.3	3.1	3.3	3.3	3.3	3.3	3.3	3.3	3.2
0430 0600		4.2 4.1	3.5 3.4				3.1							
0730 0900			3.3			3.3	3.2							
1030 1200	4.2 4.1						3.3							
1330 1500		4.1												
1630 1800		4.1								3.3			3.3	
1930 2100						3.2 3.1				3.2 3.3			3.2	3.2 3.1
2230 2400	4.1	4.0	3.3	3.3	3.3	3.1	3.3	3.3	3.3	3.3	3.3	3.3	3.2	3.1

DATE TIME	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10
0130 0300 0430	3.1	3.1 3.0	3.1	3.0	3.0	3.1	3.0	3.0	3.1	3.1	3.1	2.9	2.9	2.9
0600 0730					3.0 3.1									
0900				3.0	3.1									
1030			3.1	3.1									2.9	
1200		3.0	3.0										3.0	
1330 1500		3.1												
1630								3.0			3.1		3.0 2.9	
1800						3,1		3.1			3.0		2.9	
1930						3.0								2.9
2100														2.8
2230 2400	3,1	3.1	3.0	0.1	0.1						3.0			2.7
				3.1	3.1	3.0	3.0	3.1	3.1	3.1	2.9	2.9	2.9	2.7
DATE TIME	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24
0130	2.7	2.9	3.0	2.9	2.9	2.9	2.7	2.8	3.0	2.7	2.5	2.5	2.2	2.8
0300	2.7	-,,	3.0	2.8	2.,	2.8	2.7	2.9	3.0	2.7	2.6	2.5	2.2	2.8
0430	2.6				2.9	2.6	2.6				2.5			2.7
0600	2.7				2.8	2.7	2.7		3.0					2.7
0730	2.8	2.9		2.8		2.6			2.9		2.5			2.6
0900 1030		3.0		2.9		2.5 2.5		2.9 3.0			2.6	2.5	0.0	
1200					2.8	2.6		3.0		2.7	2.4	2.4 2.4	2.2	
1330					2.9	2.0				2.8	2.4	2.2	2.3	
1500	2.8									2.7	2.5		2.4	
1630	2.7		3.0	2.9					2.9		2.5		2.5	
1800 1930	2.8 2.9		2.9	2.8		2.6			2.8		2.6		2.6	
2100	2.8			2.8	2.9	2.7	2.7 2.8		2.8		2.5	2.2	2.7	2.7
2230	2.8			2.7	2.8		2.0		2.7	2.7		2.3	2.7	
2400	2.9	3.0	2.9	2.9	2.9	2 . 7	2.8	3.0	2.7	2.6	2.5	2.2	2.8	2.7
DATE TIME	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9
0130	2.7	2.6	2.6	2.4	2.6	2.9	2.9	2.9	2.9	2.9	2.5	2.4	2.3	2,2
0300		2.6	2.0	2.7	2.0	2.5	2.0	2.8	2.0	2.9	2.5	2.5	2.3	2.0
0430		2.7							2.9	2.8				2.0
0600	2.7	2.7	2.6	2.4	2.6			2.8	2.8		2.5			1.9
0730 0900	2.8	2.8	2.5	2.5	2.7			2.9			2.4			
1030		2.7	2.4 2.5	2.5	2.7 2.8						2.4		2.3	1.9
1200		2.6	2.5	2.6	2.9			2.9	2.8		2.3		2.4	2.0
1330		2.4	2.6					3.0	2.9					1.9
1500	2.8		2.6					2.9		2.8	2.3			
1630	2.7	2.4	2.5							2.7	2.2			
1800 1930	2.5	2.5	2.4								2.3	2.5	2.4	1.9
2100	2.5											2.4	2.3	2.0
2230	2.6	2.5							2.9	2.7		2.3	2.2	2.0
2400	2.6	2.6	2.4	2.6	2.9	2.9	2.9	2.9	2.8	2.6	2.3	2.3	2.2	2.1

DATE	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23
0130 0300 0430	2.2 2.4 2.5	2.2 2.2 2.3	2.4 2.3	2,7	2.7	2.7	2.7	2.5	2.4 2.4 2.2	2.2	2.2	2.4 2.4 2.3	2.1	2.1
0600 0730 0900 1030	2.8 2.7 2.8	2.2	2.3 2.4	2.7 2.8			2.6 2.6 2.5 2.5	2.6 2.5			2.1 2.1 2.2	2.3 2.1	2.1 2.2	
1200 1330 1500	2.8	2.2					2.4	2.5			2.2		2,1	
1630 1800 1930 2100	2.6 2.4 2.3 2.2	2.2 2.1	2.4 2.6	2.8 2.7			2.4 2.5	2.6 2.5 2.4			2.3 2.1 2.2 2.2			
2230 2400	2.2	2.3	2.7	2.7	2.7	2.7	2.5	2.4	2.2	2.2	2.3	2.1	2.1	2.1
DATE	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6
0130 0300 0430	2.1	2.1	2.1	2.1 2.2	2.2 2.1 2.0	2.0 2.1 2.1	1.9	1.9	2.1 2.0	2.1	2.2	2.1	2.2	2.2
0600 0730 0900	2.0	2.1 2.0			2.0	2.2		1.9			2.2 2.1			
1030 1200 1330			2.1 2.0 2.1					2.0	2.0 2.1		-,-			
1500 1630 1800 1930			2.1 2.0 2.1	2.2		2.2 2.1 2.0 2.0				2.1		2.1 2.2		2.2 2.1
2100 2230		2.0 2.1	2.1	2.2		1.9		2.0 2.1		2.2				
2400	2.0	2.1	2.1	2.2	2.0	1.9	1.9	2.1	2.1	2.2	2.1	2.2	2.2	2.1
DATE	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20
0130 0300	2.2	2.1	2.2	2,2	2.1	2.2	2.2	2.3	2.3	2.4	2.4	2.3	2.4	
0430 0600 0730	2.2		2.2 2.1											
0900 1030 1200 1330		2.1 2.2			2.1	2.1 2.2	2.2		2.3 2.4			2.3 2.4	2.4	
1500 1630 1800											2.4 2.3		End o	
1930 2100 2230			2.1 2.2	2.2 2.1							2.3			
2400	2.1	2.2	2.2	2.1	2.2	2,2	2.3	2.3	2.4	2.4	2.4	2.4		

LAKE MICHIGAN - STATION 40, Depth 90 m. Start 3 December 1963, 1130 CST; end 19 April 1964, 1552 CST. Instrument serial no. 285, Film record 20,209. Initial cal. 0°C, final cal. 0°C.

DATE	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12_10	12_11	12-12	12-13	12-14	12-15	12-16
TIME	12-5	12-7	12-5	12 0	12-1	12-0	12-5	12-10	12-11	72 12	12 13	14 17	12 13	12 10
0130		4.1	4.8	4.8	4.3	4.1	5.1	4.3	4.6	4.5	4.5	4.8	5.1	4.9
0300			4.6	4.7	4.1	4.2	5.2	4.2	4.4	4.3	4.4	5.0	5.4	4.7
0430			4.6	4.5	4.1	4.3	5.3		4.2	4.3	4.3	5.5	5.6	4.5
0600			4.5	4.3	4.3	4.4	5.4			4.4	4.2	5.8	5.8	
0730			4.4	4.2	4.5	4.5	5.2			4.6		5.6		4.5
0900		4.1	4.2	4.4	4.9	4.7	5.0		4.2	4.8		6.0	5.8	4.4
1030		4.2		4.6	4.8	4.8	4.9		4.9	4.9	4.2	6.2	5.6	4.6
1200	4.5	4.4		4.8	4.8		4.8		4.5	5.0	4.3	5.8	5.4	5.0
1330	4.6	4.6	4.2	4.3	4.6		4.6		4.5	5.0	4.5	5.1	5.3	5.3
1500	4.8	4.8	5.2	4.1	4.5		4.4	4.2	4.7 4.8	4.9 4.9	4.8	5.2 5.2	5.2 5.3	5.6 5.7
1630 1800	4.4	4.8 4.2	5.4 5.4		4.4 4.3	4.8	4.4 4.6	5.2	5.0	4.8		5.0	5.1	5.6
1930	4.1	4.1	5.0		4.2	4.9	5.3	6.0	4.7	4.7	4.8	4.9	5.0	5.0
2100	4.1	4.5	4.9		4.1	5.0	4.6	5.4	5.0	4.6	4.7	4.8	5.3	5.6
2230		4.7	4.7	4.1	4.1	4.9	4.3	4.8	4.6	4.5	4.7	5.0	5.2	5.5
2400	4.1	4.8	4.7	4.4	4.1	5.0	4.2	4.8	4.6	4.5	4.8	5.3	5.1	5.3
DATE	12-17		12-19							12-26				
TIME	12-17	12-10	12-17	12-20	12-21	12-22	12-25	12-24	12-23	12-20	12-21	12 20	12 27	12 30
0130	5.3	5.2	5.3	4.9	5.5	5.0	5.4	5.4	5.2	5.1	4.8	5.0	5.3	5.3
0300	5.3	5.4	5.4	4.8	5.5	4.9		5.5			4.9		5.3	5.2
0430	5.0	5.5	5.3	4.6	5.4	4.9	5.4			5.1	5.0		5.4	5.1
0600	4.9	5.6	5.3	4.4	5.3	5.0	5.5		5.2	5.0	5.0		5.5	5.2
0730	5.0		5.2	4.3	5.4	5.2			5.1		5.1			
0900	5.2	5.6	5.2	4.4	5.6	5,3		5.5		5.0			5.5	5.2
1030	5,2	5.5	5.1	4.6	5.3	5.4		5.4	5.1	4.9	5.1		5.4	5.1
1200	5.3	5.6	5.0	4.9			5.5	5.3	5.0	4.7	5.0	5.0	5.3	4.9
1330	5.3	5.7	5.0	5.2			5.4	5.2		4.6		5.1	- 0	5.1
1500	5.4		4.9	- 0	5.3		5.3	5.1		4.3		5.2	5.3	5.2 5.3
1630 1800	5.2 4.8	5.7	4.8 4.7	5.2 5.0	5.4 5.3	5.4 5.3	5.2 5.1	5.0 5.1	5.0 5.1	4.9 5.1		5.3 5.3	5.4 5.3	5.3
1930	4.4	5.6	4.7	4.9	5.3	5.3	5.1	5.2	J. I	5.0		5.2	5.3	5.1
2100	4.3	5.5	4.8	5.2	5.1	5.2	5.0	3.2		4.9		J. 2	5.2	5.0
2230	4.3	5.4	4.7	5.3	5.2	5.3	5.2			4.7			5.2	4.9
2400	4.5	5.3	4.9	5.5	5.1	5.3	5.3	5.2	5.1	4.7	5.0	5.2	5.3	4.9
DATE	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13
TIME 0130	4.9	4.8	4.7	5.3	5.2	5.0	4.5	4.5	4.2	4.7	4.8	4.4	5.1	4.7
0300	5.0	4.8	4.7	د ، د	1.4	٥,٠	4.5	4.5	4.2	4.7	4.8	4.4	J. I	4.7
0430	5.1	4.7	4.9				4.6	4.4		4.8	4.6			4.8
0600	5.2	4.7	5.0			5.0	4.0			4.9	4.5			4.0
0730	5.1	4.8	5.0			4.9			4.2	4.9	4.6	4.4	5.1	
0900	4.9	4.0	5.1	5.3		4.8		4.4	4.3		4.5	4.5	5.0	4.8
1030	4.8	4.8	5.2	5.4		4.7		4.3	4.5		7.5	4.5	5.0	4.7
1200	4.7	4.9	5.3	5.4		4.7	4.6		4.3				4.9	4.6
1330	4.8	5.0	5.4	5,5	5.2	4.6	4.5	4.3	4.4			4.5	4.8	4.5
1500	4.8	5.0		5.5	5.3		4.6	4.2				4.6	4.7	4.4
1630	4.7	4.9	5.4	5.4								4.7	4.6	
1800	4.8	4.9	5.3								4.5	4.8	4.7	
1930	4.8	4.8		5.4	5.3	4.6			4.4		4.6	4.9		
2100	4.7	4.8	5.3	5.3	5.2	4.5	4.6		4.5		4.6	5.0	4.6	4.4
2230		4.7	5.2	5.2	5.1		4.5		4.5		4.5	5.0	4.7	4.5
2400	4.7	4.7	5.2	5.2	5.0	4.5	4.5	4.2	4.6	4.9	4.5	5.1	4.7	4.5

LAKE MICHIGAN, STATION 40, 90 m. continued.

DATE	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27
0130 0300 0430	4.5 4.4 4.4	4.3 4.3 4.4	4.8	4.8	4.6	4.5	4.5	4.5	3.9 3.9 3.8	3.8	3.8	3.7 3.7 3.6	3.4	3.7
0600 0730 0900 1030 1200 1330 1500	4.3	4.4 4.5 4.6			4.6 4.5	4.5 4.6	4.5 4.6	4.5 4.4 4.4 4.3		3.8 3.9		3.6 3.5	3.5 3.5 3.6 3.7 3.7 3.8 3.8	3.7 3.8
1630 1800 1930 2100 2230		4.7 4.7 4.8		4.8 4.7	4.5 4.6 4.6 4.5	4.6 4.5	4.6 4.5	4.2 4.1 4.0 4.0 3.9		3.9 3.8		3.5 3.4	3.7	3.8 3.7
2400	4.3	4.8	4.8	4.6	4.5	4.5	4.5	3.9	3.8	3.8	3.8	3.4	3.7	3.7
DATE TIME	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10
0130 0300 0430 0600	3.7	3.7	3.8	3.8	3.8	3.7 3.7 3.6	3.6 3.6 3.7	3.6	3.5	3,5	3,5	3.5	3.6	3.7 3.7 3.6
0730 0900 1030 1200					3.8 3.7									
1330 1500 1630 1800		3.7					3.7 3.6							3.6 3.5 3.5 3.4
1930 2100 2230		3.8						3.6 3.5					3.6 3.7	3.4 3.3
2400	3.7 2-11	3.8 2-12	3.8 2-13	3.8 2-14	3.7 2-15	3.6 2-16	3.6 2-17	3.5 2-18	3.5 2-19	3.5 2-20	3.5 2-21	3.5 2-22	3.7 2-23	3.3 2-24
DATE TIME														
0130 0300	3.4	3.5	3.4	3.4	3.5	3.5	3.1	3.1	3.1	3.0 3.0	3.2	3.3	3.3	3.4
0430 0600 0730 0900 1030	3.4 3.5		3.4							3.1	3.2 3.3	3.3 3.4	3.3 3.4	3.4 3.3 3.3 3.2
1330 1500 1630 1800 1930		3.5 3.4	3,5			3.5 3.4 3.3 3.2				3.1 3.2			3.4 3.5 3.5 3.4	3.2 3.1
2100 2230 2400	3.5	3.4	3.4	3.5	3.5	3,2 3,1 3,1	3.1	3.1	3.1	3.2	3.3	3.4 3.3 3.3	3.3	3.1 3.2 3.2

	LAKE III	LUTTGAL	N, 51A.	LIUN 40	у, 90 п	a. cont	inued							
DATE	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9
TIME					-			-						
0130	3.2	3.2	3.0	3.3	3.3	3,1	3.0	3.0	2.9	2.9	3.0	3.0	3.1	3.0
0300 0430		3.2			3.2		3.0		2.9	3.0	3.0			
0600		3.1				3,1	2.9	2.0	2.8		2.9	3.0		3.0
0730		3.1				3.0	2.9	3.0 3.1	3.7 2.7		2.8	3.1		2.9
0900		3,1		3.3		3.0	3.0	3.2	2.6		2.9			
1030		5,2		3.4			3.1	3.2	2.0	3.0	3.0	3.1		
1200		3.2			3.2		3.1			3.1	3.0	3.0	3.1	
1330		3.1	3.0		3.1	3.0	3.2				2.9	2.9	3.2	
1500			3.1			3.1	3.1	3.2			2.9		3.2	
1630						3.0	3.0	3.1	2.6		3.0		3.1	
1800		3.1				2.9		3.0	2.7		2.9	2.9		2.9
1930		3.0	3.1					3.0		3.1		3.0	3.1	2.8
2100 2230			3.2	3.4		2.9	3.0	2.9		3.0	2.9		3.0	2.7
2400	3.2	3.0	3.3	3.3	2 1	3.0	2.9	2.7	2.7		3.0			
2400	3,2	3.0	3.3	3,3	3.1	3.0	3.0	2.7	2.8	3.0	3.0	3.0	3.0	2.7
DATE	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23
TIME	0.7	0.0												
0130 0300	2.7 2.7	2.9	3.1	3.1	3.1	3.2	3.0	3.0	2.7	2.7	2.7	2.8	2.4	3.1
0430	2.8							3.0		2.7	2.7	2.7	2.3	
0600	2.0						3.0	2.9	2.7	2.8	2.6	2.7	2.3	3.1
0730							3.1	2,5	2.8			2.8	2.5	3.0
0900	2.8						3,1		2.8			2.9	2.6	3.0
1030	2.9							2.9	2.7	2.8		2.9	2.7	2.9
1200								2.8	2.6	2.9	2.6	2.6	2.7	2.9
1330		2.9					3.1				2.7		2.8	2.8
1500		3.0					3.0	2.8					2.9	
1630								2.7				2.6	3.0	
1800 1930					0.1	3.2						2.7	3.1	
2100					3.1	3.1 3.1		2 7	2.6	2.9	2.7		3.2	
2230		3.0			3.2	3.0		2.7 2.8	2.6	2.8	2.8	2.7	3.2 3.1	
2400	2.9	3.1	3.1	3.1	3.2	3.0	3.0	2.7	2.6	2.7	2.8	2.5	3.1	2.8
DATE	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31						
TIME	J 27	<u> </u>	J-20	J-21,	3-20	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6
0130	2.8	2.7	3.0	3.0	2.9	3.0	2.7	2.9	2.6	2.7	2.7	3.0	2.7	2.5
0300		2.8					2.8	2.8		2.8	2.8	3.0		
0430		2.9					2.8	2.7		2.8	2.8	2.9		
0600 0730							2,9		2.6	2.7	2.9			
0900	2.8	2.9					2.9		2.7		3.0			
1030	2.7	2.8		3.0		2.0	3.0					2.9	2.7	
1200	2.7	2.7		2.9		3.0 2.9	3.0	2.7				2.8	2.6	
1330	2.6	2.7		- 0 /		200	2,9	2.6				2.8	2.5	
1500	2.6	2.8				2.9	2.9	2.6		2.7		2.7		
1630	2.7	2.9	3.0			2.8	3.0	2.7		2.6		-0,		
1800	2.8		2.9											
1930	2.7													
2100	2.7		2.9		2.9			2.7					2.5	
2230 2400	2.6	2.9	3.0	2.0	3.0	2.8	3.0	2.6		2.6			2.6	
2400	2.6	2.9	3.0	2.9	3.0	2.7	2.9	2.6	2.7	2.7	3.0	2.7	2.5	2.5

LAKE MICHIGAN, STATION 40, 90 m. continued.

DATE	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20
TIME														
0130	2.5	2,6	2.6	2.6	2.6	2.6	2.7	2.3	2.2	2.3	2.5	2.5		
0300		2.6	2.7			2.7		2.4		2.4				
0430		2.7						2.4	2.2					
0600							2.7	2.3	2.3	2.4				
0730		2.7	2.7			2.7	2.6	2.3	2.3	2.5				
0900		2.6	2.6			2.6	2.6	2.2	2.4					
1030	2.5		2.5			2.5	2.5							
1200	2.4					2.4						2.5		
1330						2.3						2.6		
1500			2.5					2.2	2.4					
1630			2.6		2.6		2 . 5	2,3	2.3			2.6		
1800		2.6	2.5		2.5	2.3	2.4	2.3				End o	f	
1930		2.7	2.6		2.5	2.4	2.4	2.2				Recor	d.	
2100	2.4	2.7			2.4	2.6	2.3							
2230	2.5	2.8			2.4	2.7								
2400	2.5	2.6	2.6	2.6	2.5	2.7	2.3	2.2	2.3	2.5	2.5			

LAKE MICHIGAN - STATION 40, Depth 120 m. Start 3 December 1963, 1130 CST; end 19 April 1964, 1552 CST.

	Instrum										1.0°C,	Final	cal.	+0.2°C
DATE	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16
TIME														
0130		3.2	3.2	3,2	3.2	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.2	3.2
0300														
0430														
0600														
0730														
0900						3.2								
1030						3.3								
1200	3.2		3.2											
1330			3.3											
1500														
1630														
1800														
1930			3.3									3.3		
2100			3.2									3.2		
2230														
2400	3.2	3.2	3.2	3.2	3.2	3.3.	3.3	3.3	3.3	3.3	3,3	3.2	3.2	3.2

LAKE MICHIGAN, STATION 40, 120 m. continued.

DATE	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30
TIME 0130	3.2	3.5	3.4	3.4	3.5	3.4	3.5	3.4	3.5	3.6	3.6	3.7	4.3	3.9
0300													4.3	
0430 0600				3.4				3.4					4.4	3.9
0730				3.4	3.5			3.5					4.4	3.8
0900				3.3	3.4								4.6	3.7
1030	3.2												4.6	3.6
1200	4.6												4.5	3.6
1330 1500	5.1 4.8								3.5		3.6	3.7	4.0	3.5
1630	4.0								3.6		3.7	3.8		
1800	3.8								3.0		J.,	3.9		3.5
1930	3.7	3.5					3.5					4.0		3.6
2100	3.6	3.4					3.4					4.0		
2230 2400	3.5 3.5	3.4	3.4	3.5	3.4	3.4	3.4	3.5	3.6	3.6	3.6	4.1	4.0	3.6
DATE	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13
0130	3.6	3.8	3.9	3.8	3.9	3.6	4.0	3.9	3.7	4.0	4.0	4.1	4.0	4.0
0300 0430							4.0 4.1	3.9		4.0	4.0			
0600							7.1	3.8		4.1	4.1			
0730											4.1			
0900		3.8									4.0			
1030	2.6	3.9			3.9	3,6	, ,							
1200 1330	3.6 3.7				3.8 3.8	3.7	4.1 4.0	3.8		4.1		4.1		
1500	3.7				3.7			3.9		4.0	4.0	4.0		
1630	3.8				3.7						4.1			
1800					3.6									
1930 2100			3.9 3.8					3.9 3.8	3.7 3.8					
2230			3.0			3.7		3.0	3.9					
2400	3.8	3.9	3.8	3.8	3.6	3.9	4.0	3.8	3.9	4.0	4.1	4.0	4.0	4.0
DATE	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	21-7
TIME 0130	4.0	4.1	4.0	3.5	3.7	3.9	4.0	3.8	3.9	3.8	3.9	3.9	3.9	3.9
0300														
0430														
0600 0730		4.1			3.7 3.8									
0900		4.0			3.0									
1030					3.8									
1200					3.9					3.8				
1330 1500	4.0		4.0	3.5						3.9				
1630	4.1		3.9	3.6			4.0			3.9				
1800			3.8	3.6	3.9		3.9			3.8				
1930			3.7	3.7	3.8	3.9				3.8				
2100 2230			3.6 3.5		3.8 3.9	4.0	3.9			3.9				
2400	4.1	4.0	3.5	3.7	3.9	4.0	3.8	3.8	3.9	3.9	3.9	3.9	3.9	3.9
													_ • •	

DATE	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10
TIME 0130 0300	3,9	3.9	3.9	4.0	4.2	4.2	4,2	4.2	4.2 4.1	3.9	3.9	3.9	3.9	3.9
0430 0600 0730									4.0 3.9					3.9 4.0
0900 1030			3.9 4.0											4.0 3.9
1200 1330 1500			4.0 4.1	4.0 4.1										
1630 1800 1930			4.1 4.0				4.2 4.3 4.3							
2100 2230							4.2							
2400 DATE	3.9 2-11	3.9 2-12	4.0 2-13	4.1 2-14	4.2 2-15	4.2 2-16	4.2 3-17	4.2 2-18	3.9 2-19	.39 2-20	3.9 2-21	3.9 2-22	3.9 2-23	3.9 2-24
TIME 0130	3.9	3.9	3.9	3.9	3.9	3.9	3.9	4.0	4.0	4.0	3.9	3.9	3.9	3.9
0300 0430	3,,	3.7	3.,	3.,	•••	3.,	3.5				5.,,	517	0.,	
0600 0730														
0900														
1030 1200														
1330 1500										4.0 3.9				3.9 3.8
1630 1800							3.9 4.0							
1930							4.0							
2100 2230														
2400	3.9	3.9	3.9	3.9	3.9	3.9	4.0	4.0	4.0	3.9	3.9	3.9	3.9	3,8
DATE	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9
0130 0300	3.9	3.9	3.9	3.9	3.8	3.8	3.8	3.9	3.9	3.9	3.9	3.9	3.2	3.2
0430 0600												3.9		
0730 0900							3.8					3.8 3.8		
1030 1200							3.9					3.7 3.7		
1330			3.9									3.6		
1500 1630			3.8									3.6 3.5		
1800 1930			3.8 3.9									3.4 3.3		
2100 2230												3.2		
2400	3.9	3.9	3.9	3.9	3.8	3.8	3.9	3.9	3.9	3.9	3.9	3.2	3.2	3.2

LAKE MICHIGAN, STATION 40, 120 m. continued.

DATE	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23
TIME 0130	3.2	3.2	3.2	3.2	3.2	3.1	3.0	3.1	3.0	3.1	3.1	3.1	3.0	3.1
0300 0430														
0600 0730							3.0						3.0	3.1
0900 1030					3.2		3.1		3.0 3.1				3.1	3.0
1200 1330								3.1					3.1 3.0	
1500 1630								3.0				3.1 3.0		
1800								3.1				3.0		
1930 2100						3.1 3.0		3.1 3.0					3.0	
2230 2400	3.2	3.2	3.2	3.2	3.1	3.0	3.1	3.0	3.1	3.1	3.1	3.0	3.1 3.1	3.0
DATE	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6
TIME 0130	3,0	3.0	3.0	3,0	3.0	3.0	3.0	2.9	3.0	3.0	3.0	3.0	3.0	3.0
0300 0430														
0600 0730				3.0				2.9						
0900				3.1				3.0						
1030 1200														
1330 1500				3.1										
1630 1800				3.0										
1930 2100														
2230			0.0	0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2400 DATE	3.0 4-7	3.0 4-8	3.0 4-9	3.0 4-10	3.0 4-11	3.0 4-12	3.0 4-13	3.0 4-14	3.0 4-15	3.0 4-16	3.0 4-17	3.0 4-18	3.0 4-19	3.0 4-20
TIME 0130	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
0300	3.0	3.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
0430 0600														
0730 0900														
1030 1200														
1330 1500												3.0 End c		
1630												Recor		
1800 1930														
2100 2230														
2400	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0			

LAKE MICHIGAN - STATION 40, Depth 150 m. Start 3 December 1963, 1130 CST; End 19 April 1963, 1552 CST. Instrument serial no. 272, Film record 20,211. Initial cal. +0.5°C,final cal. 0°C.

					,							LINGI ,	car. o	٠.
DATE	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16
TIME														
0130		4.0	4.0	4.0	3.9	3.9	3.9	3.9	4.0	3.9	4.0	4.0	4.0	4.0
0300													4.0	
0430							3.9						4.1	
0600							4.0						4.2	
0730		4.0	4.0		3.9					3.9			4.2	
0900		3.9	3.9		4.0					4.0			4.3	4.0
1030											4.0			4.1
1200	4.0										4.1		4.3	
1330					4.0						4.0		4.1	
1500	4.0				3.9			3.9					4.2	
1630	3.9							4.0						
1800													4.2	
1930		3.9	3.9	4.0			4.0						4.1	4.1
2100		4.0	4.0	3.9		3.9	3.9				4.0		4.0	4.2
2230						4.0					4.1			
2400	3.9	4.0	4.0	3.9	3.9	4.0	3.9	4.0	4.0	4.0	4.1	4.0	4.0	4.2
DATE	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30
TIME														
0130	4.2	4.1	4.1	4.0	4.1	4.1	4.4	4.0	4.2	4.1	4.0	4.1	4.1	4.2
0300		4.1	4.2		4.1	4.0	4.4		4.3			4.1	4.0	4.2
0430		4.2	4.1		4.2		4.5		4.5	4.1	4.0	4.0		4.3
0600			4.2		4.3				4.3	4.2	4.1			4.4
0730		4.2	4.2		4.4				4.2	4.1			4.0	4.5
0900	4.2	4.0	4.1		4.3	4.0	4.5			4.0			4.1	4.4
1030	4.3			4.0	4.2	4.1	4.3		4.2				4.2	
1200	4.3			4.1	4.1	4.2	4.3		4.1	4.0		4.0	4.1	4.4
1330	4.4			4.4	4.1	4.2	4.2		4.0	4.1		4.1	4.0	4.6
1500	4.5		4.1	4.3	4.0	4.1					4.1		4.1	4.8
1630	4.4		4.0			4.2	4.2			4.1	4.0			4.9
1800	4.3			4.3		4.3	4.3			4.0			4.1	4.8
1930	4.1			4.2		4.4	4.3	4.0					4.2	4.8
2100	4.0			4.0			4.1	4.1					4.1	4.9
2230	4.0			4.0			4.0	4.0	4.0					5.0
2400	4.1	4.0	4.0	4.1	4.0	4.4	4.0	4.1	4.1	4.0	4.0	4.1	4.1	5.1
DATE	12-31	1_1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13
TIME	12 31		<u></u>								1 10			1 17
0130	5.1	5.0	4.1	4.2	4.3	4.3	4.2	4.1	4.9	4.3	4.1	4.2	4.7	4.4
0300		5.0	4.0	4.1		4.3	4.2		4.9	4.2		4.3		4.2
0430	5.1	4.9	4.1	4.2	4.3	4.4	4.1		4.8	4.1		4.4		4.1
0600	5.0				4.2	4.5			4.7			4,5		
0730	4.9	4.9			712	4.7			4.5			4.6		
0900	4.5	4.5			4.2	4.7			4.3			4.7		
1030		4.4			4.3	4.6			4.2			4.8		
1200	4.9	4.4	4.1	4.2	4.3	4.0			4.2	4.1		4.0		
1330	5.0		4.2	4.3	4.2	4.6		4.1		4.2				
1500	3.0		4.2	4.3	4.3	4.5	4.1	4.2	4.2	4.2				
						4.5		4.2		4.2				
1630 1800			4.4	4.2 4.3	4.2	4.5	4.2		4.3	4.1				
1930		4.4	4.4			4.4	4.2	4.2	4.3	4.1				
2100		4.4	4.4	4.2	4.2	4.4	4.2	4.6	4.4				4.7	
2230						, ,	4 . I		4.4					
2400	5.0	4.2 4.1	4.2	4.3 4.3	4.3 4.3	4.4 4.3	4.1	4.9 5.0	4.4	4.1	4.1	4.8 4.7	4.6 4.5	4.1

LAKE MICHIGAN, STATION 40, 150 m. continued.

			•											
DATE	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27
TIME														
0130	4.1	4.0	4.2	3.9	3.9	3.9	3.7	3.8	3.7	3.7	3.8	3.8	3.7	3.5
0300	4.2		4.1											
0430			4.2											
0,600			4.2		3.9		3.7			3.7				
0730			4.1		3.8		3.6			3.8			3.7	
0900			4.0				3.5						3.6	
1030			3.9					3.8						
1200						3.9		3.7						
1330						3.8	3.5	_						
1500					3.8		3.6	3.7						
1630					3.9		3.8	3.8						
1800						3.8								
1930	, ,					3.7						2.0	2.0	
2100	4.2	4.0										3.8	3.6	
2230	4.1	4.1			2.0					2 0	2 0	3.7	3.5	2 -
2400	4.0	4.2	3.9	3.9	3.9	3.7	3.8	3.8	3.7	3.8	3.8	3.7	3.5	3.5
DATE	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10
TIME 0130	3.5	3.5	3.4	3.4	3.5	3.6	3.6	3.6	3.6	3.5	3.4	3.3	3.3	3.0
0300	3.3	3.3	3.4	3.4	3.5	3.6	3.0	3.0	3.0	3.5	3.4	3.3	3.3	3.0
0430		3.5				3.5								
0600		3.4	3.4			3.3								
0730		3.4	3.3				3.6							
0900		3.3	3.3				3.5							
1030		3.3		3.4		3.5	3.3	3.6						
1200				3.5		3.6		3.5	3.6					
1330				3.3	3.5	3.0		3.6	3.5					3.0
1500					3.6			3.0	3.3				3.3	3.1
1630					3.0			3.6	3.5	3.5			3.2	3.1
1800					3.6			3.7	3.6	3.4			3.1	3.2
1930					3.7		3.5	3.6	•••	•••			3.0	
2100		3.3	3.3		3.6		3.6		3.6					3.2
2230		3.4	3.4						3.5		3.4			3.1
2400	3.5	3.4	3.4	3.5	3.6	3.6	3.6	3.6	3.5	3.4	3.3	3.3	3.0	3.1
DATE	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24
TIME														
0130 0300	3.1	3.2	3.3	3.1	3.1	3.1	3.1 3.2	3.2	3.1 3.1	3.1	3.2	3.0	3.1	3.1
0430		3.2					3.2		3.2	3.2				3.1
0600	3.1	3.3							3.2					3.0
0730	3.2	3.3				3.1								3.1
0900	3.2				3.1	3.0								3.1
1030					3.2	3.0								3.2
1200					3.2									3.2
1330					3.3				3.2					3.2
1500					5.5				3.1			3.0		3.3
1630									3.1			3.1		5.5
1800					3.3						3.2	3.2		
1930					3.2						3.1			
2100					3.2	3.0								
2230			3.3		3.1	3.1						3.2		
2400	3.2	3.3	3.1	3.1	3.1	3.1	3.2	3.2	3.1	3.2	3.1	3.1	3.1	3.3

-334-

DATE	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9
TIME 0130	3.3	3,4	2.8	3.0	3.1	3.1	3.1	3.1	3.0	2.8	2.8	2.7	2.8	3.0
0300 0430 0600	3.3 3.2	3.4	2.9 3.0 3.1				3.1 3.0 3.1	3.0 3.1		2.8 2.7		2.7	2.9	
0730 0900	3.2 3.3	3.3	3.0				3.1		3.0 2.9	2.8	2.8	2.6	2.9	
1030 1200		3.1 3.0			3.1			3.1 3.0		2.8		2.7	3.0	
1330 1500 1630				3.0 3.1	3.0					2.7 2.7 2.8	2.9	2.7 2.8 2.9		
1800 1930 2100	3.3 3.4				3.1				2.9	2.8	2.8	2.9	3.0	
2230 2400	3.4	3.0 2.9	3.0	3.1	3.1	3.1	3.1	3.0	2.8	2.7 2.7	2.8	2.8 2.8	2.9	3.0
DATE	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23
TIME 0130 0300 0430	3.0	3.0	3.0	3.0	3.0	3.0	2.9 3.0	2.9 2.9 2.8	2.8 2.7 2.8	2.7 2.7 2.8	3,0	3.0 2.9 3.0	2.9	2.9
0600 0730 0900								2.9	2.9 2.8	2.8				
1030 1200 1330										2.9		3.0 2.9		
1500 1630 1800							3.0 2.9	2.9	2.8 2.9 2.8					2.9
1930 2100						3.0 2.9		2.9 2.9 2.8	2,8					
2230 2400	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.8	2.7	3.0	3.0	2.9	2.9	2.8
DATE	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6
0130 0300 0430	2.8 2.8 2.9	2.9	2.9 3.0	2.9	2.9 2.9 2.8	2.7	2.8 2.8 2.7	2.7 2.6 2.5	2.5	2.5	2.9 2.9 2.7	2.6 2.5	2.5	2.5 2.5 2.6
0600 0730 0900		2.8	3.0				2.7 2.8			2.5	2.8 2.7		2.5 2.6	2.5
1030 1200 1330 1500 1630	2.9 3.0		2.9							2.5 2.6 2.6 2.7	2.7 2.8 2.7 2.6		2.6 2.5	
1800 1930 2100	3.0	2.8 2.9	2.9 3.0		2.8 2.7	2.7	2.8			2.8 2.8 2.9	2.6 2.7 2.6			
2230 2400	2.8	2.9	3.0	2.9	2.7	2.8	2.7 2.7	2.5	2.5	2.9	2.6	2.5	2.5	2.5

LAKE MICHIGAN, STATION 40, 150 m. continued.

DATE	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20
TIME														
0130	2.5	2.5	2.4	2.5	2.4	2.5	2.6	2.7	2.7	2.7	2.7	2.8	2.7	
0300						2.4								
0430				2.5										
0600				2.6			2.6							
0730		2.5		2.6			2.7							
0900		2.4		2.5					2.7					
1030				2.4					2.8					
1200														
1330				2.4					2.8		2.7			
1500				2.3					2.7		2.8		2.7	
1630					2.4	2.4							End o	f
1800					2.5	2.5		2.7					Recor	d.
1930						2.5		2.8						
2100			2.4	2.3		2.6								
2230			2.5	2.4		2.6						2.8		
2400	2.5	2.4	2.5	2.4	2.5	2.7	2.7	2.8	2.7	2.7	2.8	2.7		

LAKE MICHIGAN - STATION 40, Depth 180 m. Start 3 December 1963, 1130 CST; end 19 April 1964, 1552 CST. Instrument serial no. 248, Film record 20,212. Initial cal. 0°C, final cal. 0°C.

DATE	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16
TIME														
0130		3.2	3.1	3.2	3.2	3.2	3.1	3.1	3.2	3.1	3.1	3.1	3.2	3.2
0300								3.1						
0430								3.0						
0600		3.2			3.2								3.2	
0730		3.1	3.1		3.1								3.1	
0900			3.2											
1030														
1200	3.0								3.2			3.1		
1330	3.2								3.1			3.2		
1500								3.0						
1630			3.2					3.1						
1800			3.1											
1930			3.1											
2100			3.2		3.1			3.1						
2230					3.2			3.2						
2400	3.2	3.1	3.2	3.2	3.2	3.2	3.1	3.2	3.1	3.1	3.1	3.2	3.1	3.2

DATE	12-17	21-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30
0130 0300	3.2 3.2	3.1	3.2	3.2	3.2	3.3	3.2	3.2 3.2	3.2	3.2 3.2	3.4	3.4	3.3	3,5
0430	3.1							3.3		3.3				
0600 0730										3.4 3.4			3.3 3.4	
0900 1030							3.2 3.1			3.5			3.4 3.5	3.5
1200 1330					3.2									3.6
1500 1630														3.7
1800 1930		3.1					3.1					3.4 3.3		3.7
2100 2230		3.2				3.3	3.2					3.3		3.6
2400	3.1	3.2	3.2	3.2	3.3	3.2 3.2	3.2	3.3	3.2	3.5	3.4	3.3	3.5	3.5 3.5
DATE	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13
TIME 0130 0300	3.4	3.6	3.4	3.5	3.4	3.3	3.3	3.5	3.4	3.5	3.5	3.5	3.4	3,4
0430							3.3 3.4							
0600 0730									3.4 3.5					
0900 1030		3.6									3.5 3.6			
1200 1330		3.5		3.5				3.5			3.7 3.6			
1500 1630	3.4 3.5	3.5		3.4	3.4		3.4 3.5	3.4						
1800 1930		3.4									3.6 3.5	3.5 3.4		
2100 2230	3.5 3.6		3.4								0.00			
2400	3.6	3.4	3.5	3.4	3.3	3.3	3.5	3.4	3.4	3.5	3.5	3.4	3.4	3.4
DATE	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27
0130 0300	3.4 3.4	3.4	3.3	3.5	3.4	3.5	3.5	3.5	3.5	3.5	3.7	3.8 3.8	4.0	4.2
0430 0600	3.5	3.4				3.5						3.9		4.2
0730	3.6	3.3				3.4						4.0		4.1
0900 1030			3.3	3.5										
1200 1330			3.4 3.4	3.4									4.0 4.1	
1500 1630			3.5		3.4 3.5	3.4								
1800 1930	3.6 3.5					3.5				3.5 3.6			4.1 4.2	
2100 2230	3.5 3.4									3.6				
2400	3.4	3.3	3.5	3.4	3.5	3.5	3.5	3.5	3.5	3.7	3.7	4.0	4.2	4.1

LAKE MICHIGAN, STATION 40, 180 m. continued.

DATE	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10
TIME	1-20	1-23	1-30	1-31	2-1	2-2	2-3	2-4	2-3	2-0	2-1	2-0	2-7	2-10
0130	4.0	3.9	3.7	3.8		3.7	3.8	3.7	3.9	3.8	3.7	3.7	3.7	4.0
0300				3.8		3.7	3.8	3.7						
0430				3.7		3.6	3.7	3.8						
0600	4.0	3.9												
0730 0900	3.9	3.7 3.7				3.6 3.7								
1030		3.6				3.7				3.8			3.7	
1200		3.0				3.8				3.7			3.8	
1330						3,0				3.7			3.9	
1500		3.6								3.8			3.9	4.0
1630		3.5											4.0	3.9
1800		3.5	3.7		3.8				3.9				4.0	
1930		3.6	3.8	3.7	3.7				3.8				4.1	
2100		3.6		3.8				3.8		3.8				
2230		3.7						3.9		3.7			, ,	
2400	3.9	3.7	3.8	3,8	3.7	3.8	3.7	3.9	3.8	3.7	3.7	3.7	4.1	3.9
DATE	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24
TIME 0130	3.9	3.9	3.9	3.9	3.9	3.9	4.1	4.1	4.0	3.9	3.9	3.9	3.7	3.5
0300	3.7	3.7	3.,	3,)	3.7	3.9	4.1	7.1	4.0	3.7	3.,	٠,,	31,	•••
0430						4.0	4.0							
0600														
0730														
0900					3.9			4.1					3.7	
1030					3.8			4.0					3.6	
1200						4.0								
1330 1500					3.8	4.1			4.0		3.9		3.6	
1630					3.9				3.9		3.8		3.5	
1800					3,,,				٠.,					
1930														
2100							4.0					3.9		
2230							4.1					3.8		
2400	3.9	3.9	3.9	3.9	3.9	4.1	4.1	4.0	3.9	3.9	3.8	3.8	3.5	3.5
DATE	2-25	2-26	2-27	2-28	2-29	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9
TIME 0130	3.5	3.6	3.4	3.3	3.3	3.3	3.3	3.2	3,2	3.1	3.1	3.1	3.1	3.1
0300	3.5	3.0	3.4	3.3	3.3	3.3	3.3	3.2	J. 2	3.1	3.1	3.1	3.1	3.1
0430	3.6													
0600		3.6												
0730		3.5												
0900									3.2					
1030							3.3		3.1					
1200							3.2							
1330														
1500 1630														
1800			3.4											
1930			3.3											
2100		3.5												
2230		3.4												
2400	3.6	3.4	3.3	3.3	3.3	3.3	3.2	3.2	3.1	3.1	3.1	3.1	3.1	3.1
							220							

-338-

LAKE MICHIGAN, STATION 40, 180 m. continued.

DATE	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23
TIME 0130 0300	3.1	3.1	3.1	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0 3.0 3.1	3.0
0430 0600 0730										3.1 3.0				
0900 1030 1200				3.2 3.1									3.1 3.0	
1330 1500 1630										3.0 3.1				
1800 1930 2100			3.1 3.2									3.1		
2230 2400	3.1	3.1	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0 3.0	3.0	3.0
DATE	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6
TIME 0130 0300	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
0430 0600														
0730 0900 1030														
1200 1330														
1500 1630 1800														
1930 2100														
2230 2400	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
DATE	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20
TIME 0130 0300	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.9	2.9	
0430 0600 0730														
0900 1030														
1200 1330									3.0				2.9 End	o f
1500 1630 1800 1930									2.9				Reco	
2100 2230 2400	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.9	2.9		
2400	3.3	٠.٠	٠.٠	• • •										

-339-

LAKE HURON DATA

Figure 2 shows the locations of the Great Lakes-Illinios River Basins Project bouy stations on Lake Huron that have winter temperature data from the 1965-66 season. Stations H-4, H-5, H-6, H-7, H-8, and H-9 were occupied for the winter season. Table 2 presents the station latitude, longitude, and water depth for each station.

TABLE 2. Temperature recording stations, Lake Huron.

Station	Latitude	Longitude	Depth
H-4	44°20.5'N	83°15.1'W	64
H-5	44°39.6'N	83°12.4'W	58
H-6	44°39.2'N	83°11.3'W	78
H-7	44°40.1'N	83°11.3'W	78
H-8	45°09.1'N	83°07.0'W	175
H-9	45°38.8'N	83°11.2'W	119

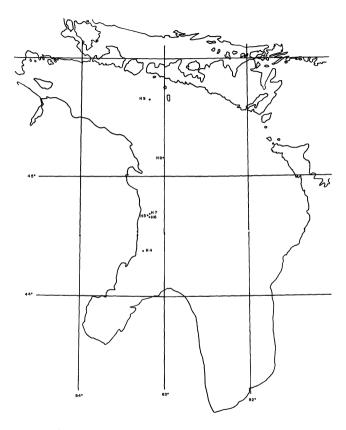


FIG. 2. U. S. Public Health Service temperature stations in Lake Huron.

LAKE HURON - STATION H-4, Depth 10 m. Start 27 October 1965, 1800 EST; end 16 April 1966, 1633 EST. Instrument serial no. 264. Initial cal. Indet., final cal. -0.5°C.

DATE	10-27	10-28	10-29	10-30	10-31	11-1	11-2	11-3	11-4	11-5	11-6	11-7	11-8	11-9
TIME 0130		8.7	8.5	8.3	8.5	8.3	8.4	8.4	8.4	8.4	8.3	8.4	8.3	8.1
0300		0.7	0.5	0.5	0.5	0.5	0.7	0.4	0.1	0.,	0.0	0.1	0.5	
0430														
0600 0730			8.5	0 0	8.5 8.4									8.1
0900		8.7	8.4	8.3 8.4	8.4							8.4		0.0
1030		8.6				8.3						8.3		
1200						8.4				8.4				
1330		0.6	0 /	0 /	0 /					8.3			8.3	8.0
1500 1630		8,6 8,5	8.4 8.3	8.4 8.5	8.4 8.3								0.2	0.1
1800	8.8	013	0.5	0.5	0.5						8.3			
1930											8.4			8.1
2100														8.2
2230 2400	8.8	8.5	8.3	8.5	8.3	8.4	8.4	8.4	8.4	8.3	8.4	8.3	8.2	8.2
DATE		11-11				11-15							11-22	11-23
TIME	11-10	11-11	11-12	11-13	11-14	11-13	11-10	11-1/	11-10	11-19	11-20	11-21	11-22	11-2
0130	8.2	8,2	8.2	8.0	8.0	7.8	7.8	7.8	7.1	7.1	7.1	7.1	7.1	7.1
0300								7.0			7.1			- 1
0430 0600								7.8 7.7	7.1 7.0		7.0			7.1
0730								7.5	7.0					7.0
0900								7.2			7.0			
1030								7.0			7.1			
1200 1330			8,2 8,1					7.1						
1500			0,1											
1630									7.0					
1800					0.0				7.1					
1930 2100					8.0 7.9									
2230			8.1											
2400	8.2	8.2	8.0	8.0	7.9	7.8	7.8	7.1	7.1	7.1	7.1	7.1	7.2	7.1
DATE	11-24	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7
TIME 0130	7.0	6.4	6.4	6.3	6.3.	6.0	5.8	5.8	5.4	5.0	4.8	4.1	, 1	4.3
0300	7.0	0,4	0.4	0.3	0.3.	0.0	5.8	5.7	5.2	3.0	4.8	4.1	4.1 4.1	4.3
0430	6.8	6.4					5.9	5.6	5.0		4.7		4.3	4.5
0600	6.6	6.3						5.5	4.8		4.6			
0730 0900	6.4	6.4 6.5			6.3		5.9				4.5		4.3	
1030	6.3	6.5			0.2		6.0		4.8		4.4		4.2 4.1	4.5
1200	6.4								4.7	5.0	4.2		4.0	4.4
1330					6.2				4.6	4.9	4.1		3.5	
1500 1630					6.1				4.5 4.0	4.8	4.0 4.2		3.9 4.0	
1800									4.0		4.2		4.2	4.4
1930		,				6.0			4.5				4.4	4.3
2100						5.9			5.0				4.5	
2230 2400	6.4	6.5	6.4	6.3	6.1 6.0	5.9 5.8	6.0	5.5 5.4	5.0	4.8	4.2 4.1	4.1	4.4 4.2	4.3 4.2
	- 0 .		J		3.0		-342-	2.7	3.0	7.0	/•±	***		7.2

DATE TIME	12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21
0130 0300	4.2 4.0	3,2	3.1	3.5	3.5	4.0	3.8 4.0	4.1	4.0	4.0	4.0	3.9	3.9	3.9 3.8
0430 0600 0730	3.9 3.5 3.2		3.1 3.2 3.3		3.5 3.9 4.0		4.0 4.1					3.9		
0900 1030			5,5									3.8		
1200 1330 1500			3.3				4.1							
1630 1800 1930			3.4			4.0	4.0	, ,				3.8		
2100 2230		3.2	3.4			3.9 3.8		4.1 4.0			4.0 3.9	3.9		
2400	3.2	3.1	3.5	3.5	4.0	3.8	4.0	4.0	4.0	4.0	3.9	3.9	3.9	3.8
DATE TIME	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4
0130 0300	3.8	3.8	3.8	3.8	2.8	2.8	2.5	2.4	2.0	2.1	2.2	2.1	2.2	2.2
0430 0600 0730					2.6 2.7	2.8		2.2 2.1 2.0						
0900 1030					2.7	2.7	2.5 2.4		2.0 2.1	2.1				
1200 1330 1500				3.8	2.8									
1630 1800				3.7 3.5		2.7 2.6								2.2
1930 2100 2230				3.2 3.0		2.5					2.2			2.4 2.5
2400	3.8	3.8	3.8	3.0	2.8	2.5	2.4	2.0	2.1	2.2	2.1	2.1	2.2	2.5
DATE TIME	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18
0130 0300 0430	2.4	2.4	2.2	2.0 2.0 1.9	1.3	1.1	1.2	1.1 1.2	1.1	1.1	1.1	1,1	1.1	1.1
0600 0730 0900				1.7 1.6 1.5	1.3									
1030 1200		2.4		1.3	1.2		1.2							
1330 1500 1630		2.2			1.2 1.1		1.1							
1800 1930 2100							1.1 1.0	1.2 1.1		1.1 1.0				
2230 2400	2.4	2.2	2.2	1.3	1.1 1.0	1.1	1.0	1.1	1.1	1.0	1.1	1.1	1.1	1.1

DATE	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1
TIME 0130 0300	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1,1	1.1	1.1
0430														
0600														
0730 0900														
1030														
1200														
1330														
1500														
1630														
1800 1930														
2100														
2230														
2400	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
DATE	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15
TIME 0130	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
0300														
0430														
0600														
0730 0900														
1030														
1200														
1330														
1500														
1630														
1800 1930														
2100														
2230														
2400	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
DATE	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	3-1
0130	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
0300														
0430														
0600 0730														
0900														
1030														
1200														
1330														
1500														
1630 1800														
1930														
2100														
2230														
2400	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1

DATE	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15
TIME								_						
0130	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
0300 0430														
0600														
0730														
0900														
1030														
1200														
1330														
1500														
1630														
1800 1930														
2100														
2230														
2400	1.1	1.1	1.1	1,1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
DATE	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	
TIME	2-10	3-17	2-10	3-19	3-20	3-21	3-22	3-23	3-24	3-23	3-20	3-21	3-20	3-29
0130	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.6	1.5	1.5	1.5
0300														
0430														
0600 0730														
0900														
1030														
1200														
1330														
1500														
1630 1800										1.2	1.6 1.5			
1930										1.6	1.5			
2100										1.7				
2230										1.6				
2400	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.6	1.5	1.5	1.5	1.5
DATE	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12
TIME														
0130	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.8	1.8	1.8	1.8
0300 0430														
0600											1.8			
0730											1.9			
0900														
1030										1.5				
1200										1.6				
1330														
1500										1.6				
1630 1800										1.7				
1930										1.7	1.9			
2100										1.8	1.8			
2230														
2400	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.8	1.8	1.8	1.8	1.8
							2/5							

DATE	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20	4-21	4-22	4-23	4-24	4-25	4-26
TIME														
0130	2.0													
0300														
0430														
0600														
0730	2.0													
0900	Tape	ran ou	ıt.											
1030														
1200														
1330														
1500														
1630														
1800														
1930														
2100														
2230														
2400														

LAKE HURON - STATION H-4, Depth 15 m. Start 27 October 1965, 1711 EST; end 16 April 1966, 1633 EST. Instrument serial no. 341. Initial cal. Indet., final cal. -0.2°C.

DATE	10-27	10-28	10-29	10-30	10-31	11-1	11-2	11-3	11-4	11-5	11-6	11-7	11-8	11-9
TIME														
0130		8.9	8.4	7.9	8.1	8.0	8.1	8.1	8.0	7.8	8.3	8.4	8.3	8.0
0300				7.8		8.1	8.1	8.0	8.0	7.7			8.3	7.9
0430				7.9		8,2	8.0		8.1	7.8			8.1	
0600		8.9		8.0	8.1	8.3	8.1	8.0		7.9				7.9
0730		8.8	8.4		8.2			7.6	8.1	7.9				8.0
0900		8.8	8.3	8.0			8.1	7.9	8.2	8.0		8.4	8.1	
1030		8.7	8.3	7.9			8.0	•				8.3	8.2	
1200		8.6	8.2	7.9				7.9		8.0				8.0
1330		8.3	8.3	7.8	8.2	8.3	8.0	8.0		8.1			8.2	7.9
1500		8.3	8.3	7.9	8.3	8.2	8.1			8.2			8.3	7.7
1630		8.4	8.2	8.0	8.0				8.2					7.8
1800	8.9	8.5	8.2						8.3	8.2	8.3		8.3	7.9
1930			8.1	8.0			8.1		8.3	8.3	8.4		8.2	8.0
2100		8.5	8.2	8.1		8.2	8.2		8.1				8.2	
2230		8.4	8.1			8.1	8.2		7.8				8.1	8.0
2400	8,9	8.4	8.1	8.1	8.0	8.1	8.1	8.0	7.7	8.3	8.4	8.3	8.0	8.1

TTME TYME	DATE	11-10	11-11	11-12	11-13	11-14	11-15	11-16	11-17	11-18	11-19	11-20	11-21	11-22	11-23
0430	0130	8.0	8.0				7.0	7.1	7.2		6.5		7.0	5.8	
0600				8.0											
0730						7.7								6.0	
1030										6.8			6.8		
1030					7.7										
1330											6.5				
1500															
1500			7.9		7.8										6.0
1630			7 0				7.2				6.4			6.9	
1800						7.0	7 2	7 1				6.9			6 0
1930															
2100					7 0	7 6	/.1	1.2					0.0		
2230				8 0									6.0		
DATE 11-24 11-25 11-26 11-27 11-28 11-29 11-30 12-1 12-2 12-3 12-4 12-5 12-6 12-7					1.5					0,5					0.7
DATE 11-24 11-25 11-26 11-27 11-28 11-29 11-30 12-1 12-2 12-3 12-4 12-5 12-6 12-7 12-8 13-9 13-30 12-1 12-2 12-3 12-4 12-5 12-6 12-7 13-8 13-9 13-30 13-1 12-2 12-3 12-4 12-5 12-6 12-7 13-8 13-9 13-8		8.0			7.9		7 1	7 2		6.5	6 4	6.9		6 0	6 7
TIME 0130 6.8 5.9 6.0 5.7 5.8 5.5 5.3 5.5 5.0 3.5 4.5 3.5 3.3 4.1 0300 0300 0300 0 5.8 5.8 5.4 5.2 5.4 4.8 4.1 3.1 3.4 4.3 0430 6.8 5.8 5.9 5.9 5.9 5.9 5.1 5.3 5.5 4.9 3.8 3.4 3.1 3.4 4.3 0430 6.8 5.8 5.8 5.4 5.2 5.4 4.8 4.1 3.1 3.1 3.4 4.3 0900 6.0 5.7 6.0 5.9 5.9 5.0 5.1 5.3 4.7 4.6 3.2 3.6 3.8 0900 6.0 5.7 6.0 5.9 5.0 5.2 4.6 4.3 4.8 3.4 3.3 3.7 3.8 1200 5.8 5.8 5.8 5.8 5.2 4.6 4.3 4.8 4.9 4.0 4.0 1500 5.7 6.1 5.6 5.9 5.4 5.5 4.5 4.5 4.0 4.9 4.0 4.0 1500 5.7 6.1 5.6 5.9 5.6 5.3 5.6 4.8 5.0 4.4 3.2 3.6 3.8 1630 5.6 5.8 5.8 5.8 5.5 5.7 5.4 5.5 4.9 3.8 3.0 3.2 3.3 4.2 1630 5.6 5.8 5.8 5.8 5.5 5.7 5.4 5.5 4.8 4.9 4.1 4.0 1500 5.7 6.1 5.6 5.9 5.9 5.6 5.3 5.6 4.8 5.0 4.4 3.2 2.6 2.6 1930 5.7 5.7 5.7 4.8 3.8 3.0 3.2 3.5 4.2 1930 5.7 5.7 5.7 4.8 3.8 3.0 3.2 3.5 4.2 1930 5.8 5.8 5.8 5.8 5.5 5.7 3.7 4.8 4.3 3.1 3.0 1930 5.7 5.7 5.7 4.8 3.8 3.0 3.2 3.5 4.2 1930 5.7 5.7 5.7 4.8 3.8 3.0 3.2 3.5 4.2 1930 5.8 5.8 5.8 5.8 5.5 5.7 3.7 4.8 4.3 3.1 3.0 1930 5.7 5.7 5.7 4.8 3.8 3.0 3.2 3.5 4.2 1930 5.7 5.7 5.7 4.8 3.8 3.0 3.2 3.5 4.2 1930 5.8 5.8 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.0 3.2 3.5 4.2 1930 5.7 5.7 5.7 4.8 4.8 3.8 3.0 3.2 3.5 4.2 1930 5.7 5.7 5.7 4.8 4.8 3.8 3.0 3.2 3.5 4.2 1930 5.7 5.7 5.7 5.7 4.8 3.8 3.0 3.2 3.5 4.2 1930 5.7 5.7 5.7 5.7 5.7 4.8 3.8 3.0 3.2 3.5 4.2 1930 5.8 5.8 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.3 4.0 4.1 1000 5.8 5.8 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.3 4.0 4.1 1000 5.8 5.8 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.3 3.0 4.0 4.1 1000 5.8 5.8 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.0 4.0 3.9 3.8 3.4 3.1 3.0 1000 5.8 5.8 5.8 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.8 5.0 4.5 3.8 3.0 3.2 3.5 4.2 1000 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.3 3.0 4.0 4.1 1000 5.8 5.8 5.8 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.3 3.0 4.0 4.1 1000 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.3 3.0 4.0 4.1 1000 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.9 5.0 5.3 5.7 5.0 3.0 4.2 3.8 3.3 3.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4															
O300		11-24	11-25	11-26	11-27	11-28	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7
0300	0130	6.8	5.9	6.0	5.7	5.8	5.5	5.3	5.5	5.0	3.5	4.5	3.5	3.3	4.1
0600 6.7 5.9 5.9 5.9 5.9 5.9 5.9 5.0 5.0 5.0 4.6 4.7 3.2 3.6 3.8 0730 6.3 5.8 5.7 6.0 5.7 6.0 5.1 4.8 4.4 4.8 3.4 3.7 3.8 1030 5.9 5.6 5.9 5.5 5.2 4.6 4.3 4.8 3.4 3.7 3.8 1330 5.8 5.8 5.8 5.7 5.4 5.5 4.7 3.8 4.9 4.0 4.0 1330 5.8 5.8 5.8 5.5 5.3 5.6 4.8 4.9 4.0 4.0 4.0 3.9 3.4 3.1 1330 5.8 5.8 5.8 5.5 5.3 5.6 4.8 5.0 4.5 3.4 3.1 3.0 1330 5.6 5.8 5.8 5.5 5.5 5.7 5.4 4.5 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 1330 5.7 5.7 5.7 5.7 5.0 3.4 3.1 3.0 1330 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.0 1330 5.7 5.7 5.7 5.7 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.0 1330 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.0 3.2 3.5 4.2 1330 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.3 3.0 1330 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.3 3.0 1330 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.3 3.0 1330 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.3 3.0 1330 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.3 3.0 1330 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.3 3.0 1330 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.3 3.3 4.0 4.1 1340 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.3 3.3 4.0 4.1 1340 5.7 5.7 5.7 5.7 5.7 5.7 5.0 3.0 4.2 3.8 3.3 3.3 4.0 4.1 1340 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.3 3.3 4.0 4.1 1340 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.3 3.3 4.0 4.1 1340 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.3 3.3 4.0 4.1 1340 5.8 5.8 5.8 5.5 5.3 5.5 5.3 5.7 5.0 3.0 4.2 3.8					5.8	5.7	5.5	5.3	5.5						
0730 6.3 5.8	0430	6.8			5.8		5.4	5.2	5.4	4.8	4.1				
9900 6.0 5.7 6.0					5.9			5.1	5.3	4.7	4.6		3.0	3.5	
1030 5.9 5.6 5.9 5.6 5.9 5.4 5.2 4.6 4.3 4.8 4.9 4.0															
1200 5.8 5.8 5.8 5.7 5.4 5.5 4.7 3.8 4.9 4.0 4.0 1330 5.8 6.0 5.7 5.4 5.5 4.7 3.8 4.9 4.0 4.0 1630 5.6 5.9 5.9 5.6 5.3 5.6 4.8 5.0 4.5 3.4 3.7 4.1 1630 5.6 5.8 5.8 5.5 5.7 3.7 4.8 4.3 3.1 3.0 1930 5.7 5.7 5.7 4.8 4.3 3.1 3.0 1930 5.8 5.8 5.8 5.5 5.7 4.8 3.3 3.4 3.1 3.0 1930 5.8 5.8 5.8 5.5 5.7 4.8 3.3 3.8 3.4 3.1 3.0 1930 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.0 3.2 3.5 4.2 2400 5.9 6.1 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.0 3.2 3.5 4.2 2400 5.9 6.1 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.3 4.0 4.1 DATE 12-8 12-9 12-10 12-11 12-12 12-13 12-14 12-15 12-16 12-17 12-18 12-19 12-20 12-21 TIME 0130 4.0 2.8 2.4 3.0 3.0 4.0 4.0 4.0 4.0 3.9 3.4 2.8 3.0 3030 3.7 3.5 3.8 3.4 3.1 3.0 3030 3.7 3.5 3.8 3.8 3.3 3.0 3030 3.5 3.8 3.8 3.8 3.3 3.0 3030 3.2 2.4 3.0 3.2 3.8 3.8 3.7 3.3 2.9 1030 2.9 2.5 3.1 3.7 3.7 3.7 3.0 3030 3.2 2.4 3.0 3.2 3.8 3.8 3.7 3.3 2.9 1030 2.9 2.5 3.1 3.7 3.7 3.7 3.0 3030 3.2 2.4 2.8 2.5 3.7 4.1 3.9 3.5 3.1 2.8 1300 2.6 2.8 2.5 3.7 4.1 3.9 3.5 3.1 2.8 1300 2.6 2.8 2.5 3.7 4.1 3.9 3.5 3.1 2.8 1300 2.6 2.8 2.5 3.7 4.1 3.9 3.5 3.1 2.8 1300 2.6 2.8 2.5 3.7 4.1 3.9 3.5 3.1 2.8 1300 2.6 2.8 2.5 3.7 4.1 3.9 3.5 3.1 2.8 1300 2.6 2.8 2.5 3.7 4.1 3.9 3.5 3.1 2.8 1400 2.6 2.8 2.5 3.7 4.1 3.9 3.5 3.1 2.8 1400 2.6 2.8 2.5 3.7 4.1 3.9 3.5 3.1 2.8 1400 2.6 3.9 4.2 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0													3.4		
1330 5.8 6.0 5.7 5.4 5.5 4.7 3.8 4.9 4.1 4.0 1630 5.6 5.9 5.9 5.6 5.3 5.6 4.8 5.0 4.5 3.4 3.7 4.1 1630 5.6 5.8 5.8 5.5 5.6 5.8 5.6 3.8 5.0 4.4 3.2 3.3 4.2 1800 5.6 5.8 5.8 5.5 5.7 3.4 8.8 3.6 4.4 4.2 2.6 1930 5.7 5.7 5.7 4.8 3.6 4.4 4.2 2.6 1200 5.7 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.0 1233 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.0 1233 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.0 3.2 3.5 4.2 1240 5.9 6.1 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.0 1233 3.8 3.4 3.1 3.0 1234 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.3 3.2 3.5 4.2 1240 5.9 6.1 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.3 4.0 4.1 1240 5.9 12-10 12-11 12-12 12-13 12-14 12-15 12-16 12-17 12-18 12-19 12-20 12-21 1240 7.8 7.8 7.8 7.8 7.8 7.8 7.8 7.8 1250 3.8 3.4 3.1 3.7 3.3 3.8 3.4 1260 3.8 3.4 3.1 3.7 3.3 3.9 1260 2.6 3.9 3.8 3.4 3.1 3.0 1260 2.6 3.9 3.8 3.3 3.1 3.0 1260 2.6 3.9 3.8 3.4 3.0 1260 2.6 3.9 3.8 3.4 3.0 1260 2.6 3.9 3.8 3.5 3.1 3.0 1260 2.6 2.8 2.5 3.7 4.1 3.9 3.5 3.1 2.8 1260 2.6 2.8 2.5 3.7 4.1 3.9 3.5 3.1 2.8 1260 2.6 2.8 2.5 3.7 4.1 3.9 3.8 3.4 3.0 1260 2.6 2.8 2.5 3.7 4.1 3.9 3.8 3.0 3.0 1260 2.6 2.8 2.5 3.7 4.1 3.9 3.4 3.0 1270 3.6 3.2 3.8 3.0 3.8 3.0 3.8 1280 3.6 3.9 3.8 3.0 3.8 3.0 3.0 1290 3.8 3.8 3.0 3.8 3.0 3.8 3.0 3.8 1290 3.8 3.8 3.0 3.8 3.0 3.8 3.0 3.8 1200 3.8 3.8 3.0 3.8 3.8 3.0 3.8 3.0 3.8 1200 3.8 3.8 3.0 3.8 3.8 3.0 3.8 3.0 3.8 1200 3.8 3.8 3.0 3.8 3				5.9											
1500 5.7 6.1 5.9 5.6 5.8 5.6 5.6 5.8 5.0 4.5 3.4 3.7 4.1 1630 5.6 5.8 5.8 5.8 5.5 5.7 3.7 4.8 4.3 3.1 3.0 1930 5.7 5.7 5.7 5.7 4.8 4.3 3.1 3.0 2230 5.8 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.4 3.1 3.0 2230 5.8 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.4 3.1 3.0 2240 5.9 6.1 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.4 3.1 3.0 2400 5.9 6.1 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.4 3.1 3.0 2400 5.9 6.1 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.0 3.2 3.5 4.2 2400 5.9 6.1 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.0 3.2 3.5 4.2 2400 5.9 6.1 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.0 3.2 3.5 4.2 2400 5.9 6.1 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.0 3.2 3.5 4.2 2400 5.9 6.1 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.0 3.2 3.5 4.2 2400 5.9 6.1 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.0 3.2 3.5 2400 5.9 6.1 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.0 3.2 3.5 2400 5.9 6.1 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.0 2400 5.9 6.1 5.8 5.8 5.5 5.3 5.7 5.0 5.0 3.4 3.8 3.0 2400 5.9 6.1 5.8 5.8 5.5 5.3 5.7 5.0															
1630 5.6 5.9 5.9 5.6 5.6 3.8 5.0 4.4 3.2 3.3 4.2 1800 5.6 5.7 5.7 5.7 5.7 3.7 4.8 4.4 4.2 3.0 1930 5.7 5.7 5.7 4.8 3.6 4.4 4.2 2.6 2100 5.7 5.7 5.7 4.9 3.3 3.8 3.4 3.1 3.0 2200 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.0 3.2 3.5 4.2 2400 5.9 6.1 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.3 3.0 4.2 128 12-9 12-10 12-11 12-12 12-13 12-14 12-15 12-16 12-17 12-18 12-19 12-21 12-21 12-21 12-21 12-21 12-21 1										3.8					
1800 5.6 5.8 5.8 5.5 5.7 4.8 4.3 3.1 3.0 1930 5.7 5.7 5.7 4.8 3.6 4.4 4.2 2.6 2100 5.7 5.7 5.7 4.8 3.6 4.4 4.2 2.6 2230 5.8 5.8 5.8 5.8 5.5 5.7 5.0 3.4 3.8 3.4 3.1 3.0 4.2 2400 5.9 6.1 5.8 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.0 3.2 3.5 4.2 DATE 12-8 12-9 12-10 12-11 12-12 12-13 12-15 12-16 12-17 12-18 12-19 12-21 TIME 1030 4.0 4.0 4.0 4.0 4.0 3.9 3.4 2.8 3.0 0430 3.9 2.4 3.0 3.2 3.6 3.9 3.8			6.1				5.3		4.8						
1930 5.7 5.7 5.7 4.8 3.6 4.4 4.2 2.6															4.2
2100 5.7 5.7 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.0 5.0 5.0 3.4 3.8 3.4 3.1 3.0 2230 5.8 5.9 6.1 5.8 5.8 5.5 5.3 5.7 5.0 3.0 3.2 3.5 4.2 2240 5.9 6.1 5.8 5.8 5.8 5.5 5.3 5.7 5.0 3.0 3.4 3.8 3.0 3.2 3.5 4.2 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250 2250					5.8	5.5		5.7	, ,				3.1		
2230 5.8 5.8 5.8 5.8 5.5 5.0 3.4 3.8 3.0 3.2 3.5 4.2 2400 5.9 6.1 5.8 5.5 5.3 5.7 5.0 3.4 3.8 3.0 3.2 3.5 4.2 DATE 12-8 12-9 12-10 12-11 12-12 12-13 12-14 12-15 12-16 12-17 12-18 12-19 12-21 12-21 17ME 1030 4.0 2.8 2.4 3.0 3.0 4.0 4.0 4.0 3.9 3.4 2.8 3.0 0300 3.7 4.0 4.0 4.0 4.0 3.9 3.4 2.8 3.0 0403 3.9 4.2 3.0 3.2 3.8 3.8 3.3 3.0 3.0 3.2 3.8 3.8 3.3 3.0 3.0 3.2 3.8 3.8 3.3 3.0 3.0 3.2 3.8 3.7 </td <td></td> <td>2 1</td> <td></td> <td></td>													2 1		
2400 5.9 6.1 5.8 5.8 5.5 5.3 5.7 5.0 3.0 4.2 3.8 3.3 4.0 4.1 DATE 12-8 12-9 12-10 12-11 12-12 12-13 12-14 12-15 12-16 12-16 12-17 12-18 12-19 12-20 12-21 TTME 7 8 2.4 3.0 3.0 4.0 4.0 4.0 3.9 3.4 2.8 3.0 0300 3.7 4.0 4.0 4.0 3.9 3.4 2.8 3.0 0403 3.9 - 3.6 3.9 3.8 3.4 3.0 0600 3.8 - - 3.0 3.2 3.8 3.8 3.3 3.0 0730 3.2 2.4 3.0 3.2 3.8 3.8 3.2 2.9 1030 2.9 2.5 3.1 3.7 3.7 3.7 3.0 3.2															4.2
DATE 12-8 12-9 12-10 12-11 12-12 12-13 12-14 12-15 12-16 12-17 12-18 12-19 12-20 12-21 171ME 13-3 1			6 1		5.8	5 5	5 3	5 7							
TIME 0130 4.0 2.8 2.4 3.0 3.0 4.0 4.0 4.0 4.0 3.9 3.4 2.8 3.0 0300 3.7 4.0 4.0 4.0 4.0 3.9 2.9 0430 3.9 3.6 3.0 3.2 3.8 3.4 3.0 0600 3.8 3.0 3.2 3.8 3.7 3.7 3.7 3.0 0900 3.2 2.4 3.0 3.2 3.8 3.7 3.3 2.9 1200 2.6 3.3 4.0 3.8 3.5 1200 2.6 3.3 4.0 3.8 3.5 1330 2.4 2.8 2.5 3.7 4.1 3.9 3.6 3.2 1300 2.3 2.6 2.6 3.9 4.2 3.9 3.5 3.1 2.8 1630 2.5 2.5 2.7 4.0 4.4 3.9 3.4 3.0 1800 2.6 2.8 4.4 4.0 3.9 3.4 3.0 1800 2.6 2.8 4.4 4.4 4.0 3.9 3.4 3.0 1800 2.6 2.8 2.8 4.4 4.0 3.9 3.4 3.0 1800 2.6 2.8 2.8 4.4 4.0 3.9 3.4 3.0 1800 2.8 2.4 3.0 3.9 4.2 4.0 2.9 2.8 1930 2.7 2.5 2.9 4.0 4.3 2.9 2.8 1930 2.7 2.5 2.9 4.0 4.3 4.0 2.9 2.7 1800 2.8 2.4 3.0 3.9 4.2 4.0 2.9 2.7 1800 2.8 2.4 3.0 3.9 4.2 4.0 4.3 3.9 2.8															
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		12-8	12-9	12-10	12-11	12-12	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21
0300 3.7 4.0 4.0 3.9 2.9 0430 3.9 3.6 3.9 3.8 3.4 3.0 0600 3.8 3.0 3.2 3.8 3.7 3.7 3.0 0730 3.5 3.1 3.7 3.7 3.3 2.9 1030 2.9 2.5 3.1 3.7 3.6 3.2 1200 2.6 3.3 4.0 3.8 3.5 3.2 2.9 1500 2.3 2.6 2.6 3.7 4.1 3.9 3.2 2.9 1500 2.3 2.6 2.6 3.9 4.2 3.5 3.1 2.8 1630 2.5 2.7 4.0 4.4 3.9 3.4 3.0 1800 2.6 2.8 4.0 4.3 2.9 2.9 2.8 2100 2.8 2.4 3.0 3.9 4.2 4.0 2.9 2.9 2.8 2200 2.8 2.4 3.0 3.9 4.2 4.0 2.9		4.0	2.8	2.4	3.0	3.0	4.0	4.0	4.0	4.0	4.0	3.9	3.4	2.8	3.0
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0300									4.0					
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0430	3.9						3.6		3.9		3.8	3.4	3.0	
0900 3.2 2.4 3.0 3.2 3.8 3.7 3.3 2.9 1030 2.9 2.5 3.1 3.7 3.6 3.2 1200 2.6 3.3 4.0 3.8 3.5 3.2 2.9 1500 2.3 2.6 2.6 3.9 4.2 3.5 3.1 2.8 1630 2.5 2.5 2.7 4.0 4.4 3.9 3.4 3.0 1800 2.6 2.8 4.4 4.0 3.0 3.0 2.9 2.8 1930 2.7 2.5 2.9 4.0 4.3 2.9 2.8 2.9 2.8 2230 4.0 4.2 3.9 2.8 2.7 2.8 2.8 2.9 2.8 2.8 2.9 2.8 2.8 2.9 2.8 2.8 2.9 2.8 2.9 2.8 2.9 2.8 2.9 2.8 2.9 2.8 2.9 2.8						3.0						3.8	3.3		
1030 2.9 2.5 3.1 3.7 3.6 3.2 1200 2.6 3.3 4.0 3.8 3.5 1500 2.3 2.6 2.6 3.7 4.1 3.9 3.2 2.9 1500 2.3 2.6 2.6 3.9 4.2 3.5 3.1 2.8 1630 2.5 2.7 4.0 4.4 3.9 3.4 3.0 1800 2.6 2.8 4.4 4.0 3.0 1930 2.7 2.5 2.9 4.0 4.3 2100 2.8 2.4 3.0 3.9 4.2 4.0 2.9 2.7 2230 4.0 4.2 3.9 2.8															
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$										3.8					2.9
1330 2.4 2.8 2.5 3.7 4.1 3.9 3.2 2.9 1500 2.3 2.6 2.6 3.9 4.2 3.5 3.1 2.8 1630 2.5 2.5 2.7 4.0 4.4 3.9 3.4 3.0 1800 2.6 2.8 4.4 4.0 3.0 3.0 1930 2.7 2.5 2.9 4.0 4.3 2.9 2.8 2100 2.8 2.4 3.0 3.9 4.2 4.0 2.9 2.7 2230 4.0 4.2 3.9 2.8				2.5									3.2		
1500 2.3 2.6 2.6 3.9 4.2 3.5 3.1 2.8 1630 2.5 2.7 4.0 4.4 3.9 3.4 3.0 1800 2.6 2.8 4.4 4.0 3.0 3.0 1930 2.7 2.5 2.9 4.0 4.3 2.9 2.8 2100 2.8 2.4 3.0 3.9 4.2 4.0 2.9 2.7 2.8 2230 4.0 4.2 3.9 2.8												3.5			
1630 2.5 2.5 2.7 4.0 4.4 3.9 3.4 3.0 1800 2.6 2.8 4.4 4.0 3.0 3.0 1930 2.7 2.5 2.9 4.0 4.3 2.9 2.8 2100 2.8 2.4 3.0 3.9 4.2 4.0 2.9 2.7 2.7 2.3 2.9 4.0 4.2 3.9 2.8 2.9 2.7 2.8 2.9 2.8 2.9 2.8 2.9 2.9 2.7 2.9 2.8 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9										3.9		0.5			
1800 2.6 2.8 4.4 4.0 3.0 1930 2.7 2.5 2.9 4.0 4.3 2.9 2.8 2100 2.8 2.4 3.0 3.9 4.2 4.0 2.9 2.7 2230 4.0 4.2 3.9 2.8										2.0					2.8
1930 2.7 2.5 2.9 4.0 4.3 2.9 2.8 2100 2.8 2.4 3.0 3.9 4.2 4.0 2.9 2.7 2230 4.0 4.2 3.9 2.8			2.5			4.0						3.4			
2100 2.8 2.4 3.0 3.9 4.2 4.0 2.9 2.7 2230 4.0 4.2 3.9 2.8			2 5				/ O			4.0					2.8
2230 4.0 4.2 3.9 2.8											4.0				
		0		3.0											,
		2.8	2.4	3.0	3.0	4.0			4.0	4.0		3.4		3.0	2.7

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DATE	12-22	12-23	12-24	12-25	12-26	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4
TIME 0130	2.7	2.8	2.9	3.0	2.4	2.0	1.7	1.5	1.0	1.8	1,6	1.5	1.7	2.0
0300	2.8	2.0	2.9	3.0	2.3	2.0	1.7	1.6	1.2	1.7	1.7	1.5	1.8	2.0
0430	2.0		3.0		2.0		1.8	1.5	1.4	1.7	1.8		1.9	
0600	2,8	2.8	•••				1.9	1.5	1.4	1.6			1.9	
0730	2.9	2.9			2.0		1.8	1.4	1.3	1.5		1.5	2.0	
0900	3.0			3.0	1.9		1.9	1.4	1.1	1.5		1.4		2.0
1030				2.8	1.7		1.8	1.3	1.0	1.4		1.5		1.9
1200				2.7	1.5		1.8	1.2	1.1	1.4				1.9
1330				2.6	1.5		1.7	1.0	1.1	1.5	1.8			2.0
1500	2.0			2.8	1.6		1.6	0.9	1.2	1.6	1.7	1.5		2.0
1630 1800	3.0 2.9			2.9 3.0	1.7 1.8	2.0 1.9	1.5 1.5	0.7 0.6	1.3 1.5	1.5	1.6	1.6		1.9 1.8
1930	2.9			3.0	1.9	1.9	1.6	0.5	1.6					1.0
2100	2.8			2.8	2.0	1.8	1.7	0.8	1.7					1.8
2230	=,0			2.6		1.7		0.9			1.6			1.9
2400	2.8	2.9	3.0	2.5	2.0	1.6	1.7	0.9	1.7	1.5	1.5	1.6	2.0	2.0
DATE	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18
TIME														
0130	2.0	2.1	2.3	1.6	0.1	0.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0300	2.0	2.1	2.0	1.6			0.6							
0430 0600	2.3	2.2	2.0 1.9	1.5 1.4	0.1		0.5							
0730	2,4	2.3	1.,	1,3	0.2		0.1							
0900	2.3	2.2	1.9	1.1	0.3		0.0							
1030	2.4		1.8	1.0	0.4									
1200					0.5									
1330	2.4		1.8	1.0	0.5	0.1								
1500	2.3		1.7	0.8	0.4	0.9								
1630	2.3		1.6	0.3	0.3	1.0		0.0						
1800 1930	2.2	2.2		0.1	0.2	1.0	0.0	0.1						
2100	2.1	2.3		0.0	0.1	0.9 0.8	0.1	0.1						
2230	2,1			0.0	0.1	0.0	0.0	0.1						
2400	2.1	2.3	1.6	0.1	0.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DATE	1-19	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1
TIME														
0130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0300														
0430 0600														
0730														
0900														
1030														
1200														
1330														
1500														
1630														
1800														
1930 2100														
2230														
2400	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1	LAKE HU	RON, S	TATION	н-4,	15 m.	contin	ued.							
DATE	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15
0130 0300 0430 0600 0730	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0900 1030 1200 1330 1500 1630 1800 1930 2100														
2230														
2400	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DATE	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	3-1
0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1930 2100 2230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2400	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DATE	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15
0130 0300 0430 0600 0730	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0 0.1	0.1
0900 1030 1200 1330 1500 1630 1800 1930 2100 2230						0.0								0.1
2400	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3

LAKE HURON, STATION H-4, 15 m. continued.

DATE TIME	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29
0130 0300	0.2	0.2	0.3	0.5	0.8	0.8	0.5	0.6	0.9	0.9	1.0 1.2	0.9 0.9	0.6	0.9 1.0
0430 0600 0730	0,2					0.8	0.6	0.6 0.7 0.7			1.5 1.6 1.5	0.8	0.6 0.8 0.7	
0900 1030 1200	0.1	0.2				0.7	0.7	0.8	0.8	0.9 0.8	$\frac{1.1}{1.0}$	0.7	0.7	
1330 1500		0.1	0,3 0,4	0.5 0.6		0.6	0.7 0.7 0.6	1.0 1.0 0.9	1.0			0.7 0.6 0.6	0.6	
1630 1800 1930		0.1	0.4	0.6 0.7 0.8		0.5 0.4 0.4	0.7 0.6 0.7		1.0		1.0	0.5	0.6 0.7 0.8	
2100 2230 2400	0.1	0.2	0.5			0.5			0.9	0.8 0.9		0.6	0.8	
	0.2	0.3	0.5	0.8	0.8	0.5	0.7	0.9	0.8	0.9	0.9	0,6	0.9	1.0
DATE	3-30	3-31	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12
0130 0300 0430	1.0	0.9 1.0	1.0	0.9	0.9 0.9 1.0	1.0	1.1	1.2	1.4	1.7 1.7 1.6	1.7	1.7 1.8	1.7	1.7
0600 0730 0900		1.0 0.9 0.8			1.0	1.0 1.1	1.1	1.2 1.3	1.5 1.6 1.4	1.0	1.7 1.8	1.8 1.7		
103 0 1200	1.0	0.9 0.9					1.2		1.5		1.8			1.7
1330 1500 1630	0.9	0.8	1.0 0.9								1.7			1.8 1.8
1800 1930 2100	0.8	0.7 0.8 0.9	0.9					1.3 1.2 1.2	1.5		1.8 1.7	1.7		1.9
2230 2400	0.8	0.9	0.8	0.9	1.0	1.1	1.2	1.3 1.4 1.4	1.7	1.6 1.7 1.7	1.7	1.6 1.7	1.7	1.8 1.8
DATE	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20	4-21	4-22	4-23	4-24	4-25	4-26
TIME 0130 0300 0430	1.7	1.9	2.0	2.0										
0600 0730 0900		1.9												
1030 1200 1330 1500	1.7 1.8			2.0 2.1										
1630 1800				2.1										
1930 2100 2230	1,8 1,9			End of Record										
2400	1.9	2.0	2.0											

LAKE HURON - STATION H-5, Depth 10 m. Start 1November 1965, 1208 EST; end 16 April 1966, 0920 EST. Instrument serial no. 175. Initial cal. Indet., final cal. -0.6°C.

DATE	11-1	11-2	11-3	11-4	11-5	11-6	11-7	11-8	11-9	11-10	11-11	11-12	11-13	11-14
0130 0300 0430 0600 0730		6.0	6.0	6.0	5.8 5.9 5.9 6.0	6.0	5.9	6.0	6.0	6.0	6.0	6.0 6.0 5.9	5.9	5.9
0900 1030 1200 1330 1500 1630 1800 1930	6.0			6.0		6.0 5.9 5.8 5.8 5.9	5.9 6.0		6.0 5.9 5.8 5.9	6.0 5.9				
2100 2230 2400	6.0	6.0	6.0	5.9 5.8 5.7	6.0	5.9	6.0	6.0	5.9 6.0	5.9 6.0 6.0	6.0	5.9	5.9	5.9 5.8 5.7
DATE TIME	11-15	11-16	11-17	11-18	11-19	11-20	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28
0130 0300 0430 0600 0730	5.6 5.5 5.6 5.6	5.7	5.3 5.2 5.1 5.0 4.6	5.5	5.5	5.0	5.0	4.9	4.9 4.8 4.6 4.5 4.0	4.0	4.0	3.9 3.9 4.0	4.0	4.0 3.9
0900 1030 1200 1330	5.7	5.7	4.2 4.2 4.3 4.7		5.5 5.4 5.3				4.0		4.0 3.9			3.9 4.0
1500 1630 1800 1930 2100		5,6 5,5 5,4 5,3	4.9 4.9 5.1 5.4 5.4		5.1 5.0 5.0 5.1				4.0 3.9 3.9 4.0					
2230 2400	5.7	5.3	5.5 5.5	5.5	5.0 5.0	5.0	5.0	4.9	4.0	4.0	3.9	4.0	4.0	4.0
DATE TIME	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12
0130	4.0	4.0	4.0	3.5	3.5	3.7	3.0	2.5	2.1	2.3	2.3	2.3	2.1	2.1
0300 0430 0600 0730				3.4 3.3 3.1 3.2	3.5 3.4	3.6	3.0 2.9 2.9 2.8	2.3 2.2 2.1		2.2	2.2			2.1 2.2
0900 1030 1200 1330				3.3 3.4 3.5	3.4 3.5	3.6 3.5 3.3	2.8 2.7 2.7 2.6				2.1 2.2 2.3 2.4	2.3	2.1 2.2	2.2 2.3 2.3
1500 1630 1800 1930				3.5	3.5 3.6 3.7 3.8	3.1 3.0	2.5			2.2	2./	2.1	2.3	2.4
2100 2230 2400	4.0	4.0	4,0	3.4	3.9 3.9 3.8	3.0	2.5	2.1	2.1 2.2	2.3	2.4 2.3 2.3	2.1	2.3 2.2 2.1	2.3

DATE	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26
TIME 0130	2.2	2.2	2.2	2.1	2.1	2.1	2.1	1.4	1.3	1.3	1.3	1.4	1.4	1.1
0300 0430														
0600 0730														
0900												. ,		
1030 1200								1.4				1.4 1.3		
1330 1500			2.2				2.1					1.3	1.4	
1630			212				1.9							
1800 1930							1.8 1.7							
2100 2230							1.6 1.5				1.3		1.3	
2400	2.2	2.2	2.1	2.1	2.1	2.1	1.4	1.3	1.3	1.3	1.4	1.4	1.1	1.1
DATE	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9
0130 0300	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.3	0.3	0.3	0.3	0.2
0430														
0600 0730									1.2					
0900 1030									1.1					
1200									0.8				0.0	
1330 1500									0.6 0.4				0.3	
1630 1800									0.3					
1930 2100														
2230												2.4		
2400	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1,2	0.3	0.3	0.3	0.3	0.2	0.2
DATE	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23
0130	0,2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
0300 0430														
0600 0730														
0900														
1030 1200														
1330 1500														
1630														
1800 1930														
2100 2230														
2400	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3

LAKE HURON, STATION H-5, 10 m. continued. DATE 1-24 1-25 1-26 1-27 1-28 1-29 1-30 1-31 2-1 2-2 2-3 2-4 2-5 2-6

	TIME 0130 0300 04430 0600 0730 0900 1030 1200 1330 1500 1630 1800 2100 2230	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	2400	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	DATE TIME	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20
	0130 0300	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930 2100 2230							0.3 0.4							
	2400	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	DATE TIME	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6
	0130 0300 0430 0600 0730 0900 1200 1330 1500 1630 1800 1930 2100 2230	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	2400	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
								-353-							

DATE	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20
TIME 0130	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
0300 0430			0.4											
0600			0.5											
0730 0900														
1030														
1200														
1330 1500														
1630														
1800														
1930 2100														
2230														
2400	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
DATE TIME	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3
0130	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6
0300 0430														
0600														
0730 0900														
1030														
1200														
1330 1500												0.5		
1630												0.6		
1800 1930														
2100														
2230 2400	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6
DATE	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17
TIME 0130	0.6	0.6	0.6	0 (0.6									
0300	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	
0430 0600														
0730														
0900													0.6	
1030 1200													End o	
1330													Recor	a.
1500 1630														
1800														
1930 2100														
2230														
2400	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6		

LAKE HURON - STATION H-6, Depth 10 m. Start 1 November 1965, 1240 EST, end 16 April 1966, 1100 EST. Instrument serial no. 160. Initial cal. Indet., final cal. -0.1°C.

	nstrum		riai n	D. 100	. IIIIL.	iai ca.	r. ma	et., r	inai c	ar0	. I C.			
DATE	11-1	11-2	11-3	11-4	11-5	11-6	11-7	11-8	11-9	11-10	11-11	11-12	11-13	11-14
TIME 0130 0300 0430		7.9	7.9	7.9	7.4 7.5 7.5	7.8 7.5 7.1	7.8	7.8 7.8 7.7	7.6 7.5	7.2	7.0	7.0	7.0	7.0
0600 0730 0900 1030 1200 1330 1500	7.9			7.9 7.8	7.6 7.7 7.8 7.8 7.9	7.1 7.3 7.4 7.4 7.5 7.7 7.8	7.8 7.9	7.7 7.8	7.5 7.4 7.4 7.3 7.2 7.2 7.1 7.0	7.2 7.1 7.1 7.0		7.0 6.9		7.0 7.1 7.2 7.3 7.4 7.2 7.0
1800 1930 2100 2230				7.8 7.7 7.0	8.0		7.9 7.8	7.8 7.7	7.0 7.3			6.9		7.0
2400	7.9	7.9	7.9	7.0	7.9	7,8	7.8	7.7	7.3	7.0	7.0	7.0	7.0	6.9
DATE	11-15	11-16	11-17	11-18	11-19	11-20	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28
0130 0300	6.8	7.0	6.5 6.5	7.3 7.2	7.0 6.9	5.9	5.6 5.7	5.7 5.6	5.8	5.5 5.5	5.0 5.0	5.2 5.2	5.7	5.3 5.4
0430 0600 0730 0900		7.0 6.9	6.7 6.9 7.0 7.1	7.1 7.0	6.8 6.5 6.0 5.7		5.8 5.8 5.9	5.6 5.5 5.4		5.6 5.7 5.8 5.8	5.1 5.2 5.3	5.3 5.4 5.6 5.6	5.7 5.6	5.6
1030 1200 1330 1500	6.8 6.9 6.9	7.0	7.3		5.7	5.9 5.8 5.7 5.6	5.9 5.8 5.7	5.4 5.5 5.5	5.8 5.7 5.6	5.7 5.6 5.5 5.3	5.3 5.2	5.7	5.6	5.6 5.4 5.2 5.2
1630 1800 1930 2100	7.0	7.0 6.9 6.8			6.0 5.8	5.5		5.6 5.7 5.8	5.5	5.2 5.1 5.0	5.2 5.1		5.5	5.0
2230 2400	7.0	6.7 6.6	7.3	7.0	5.8	5.5	5.7	5.8	5.5	5.0	5.1	5.7	5.4 5.4	5.0
DATE	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12
T IME 0130 0300 0430	5.0	6.0	5.9	5.4 5.5	5.2	4.8 4.3 3.8	3.3 3.3 3.2	4.0	4.0	3.6 3.5 3.1	4.0	3.9 3.8 3.8	3.9	3.7 3.6 3.6
0600 0730 0900 1030 1200	5.0 5.1 5.3 5.5 5.7		5.9 5.8	5.5 5.4 5.3		3.7 3.7 3.6	3.2 3.0 3.1 3.2 3.3	4.0 3.8 3.5 3.5	4.1 4.1 4.0	3.3 3.6 3.8 3.9		3.7 3.8 3.9 3.9 4.0	3.9 4.0	3.5 3.4
1330 1500 1630	5.8 5.9 6.0	6.0 5.9	5.8 5.7	5.3 5.2	5.2	3.5	3.3 3.5 3.7	3.6 3.6 3.7		3.9 4.0	4.0		4.0 3.9 3.9	3 /
1800 1930 2100 2230			5.5 5.4 5.0 5.0		5.2 5.0 4.9 4.8		3.9 3.9 4.0	3.8 3.9 3.9 4.0	4.0		4.0 3.9	4.0 3.9	3.8	3.4 3.5
2400	6.0	5.9	5.1	5.2	4.8	3.5	4.0	4.0	3.8	4.0	3.9	3.9	3.7	3.5

-355-

	DATE	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26
(0130 0300	3.5 3.4	3.1	3.5	3.6	3.6	3.3	2.7	2.5	2.8	3.2	3.3	3.1	2.2	2.2
(0430 0600 0730	3.4 3.3	3.1 3.2			3.6 3.7		2.7 2.6		2.9			3.1		2.2
	0900 1030 1200 1330	3.3 3.2	3.2 3.3	3.5 3.6		3.7 3.6		2.6 2.5		3.0			3.0 2.9 2.9		2.1
	1500 1500 1630 1800	3,2	3.3 3.4 3.4	5.0		3.6 3.5 3.4	3.3 3.2 3.1		2.5				2.8 2.6 2.5		
:	1930 2100 2230	3.2 3.1	3.5			3.4	3.0 3.0 2.9		2.7	3.0 3.1	3.2 3.3	3.3 3.2	2.4 2.3 2.2		
	2400	3.1	3.5	3.6	3.6	3.3	2.8	2.5	2.8	3.1	3.3	3.2	2.2	2.2	2.0
	DATE FIME	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9
	0130 0300	2.0	2.7 2.8	2.8	2.9	2.2	2.5	2.5	2.3	2.2	2.2	2.2	2.0	1.6	1.5
	0430 0600 0730					2.4 2.5 2.6		2.5			2.3		2.0	1.6 1.5	
	0900 1030	2.0 2.1	2.8	2.8 2.9		2.7 2.7 2.6		2.4 2.3 2.2	2.3			2.2	2.1		1.5 1.6
	1200 1330 1500	2.1 2.2	2.7		2.9	2.6		2.2	2.2		2.3 2.2	2.1	2.0		1.7 1.8
	1630 1800 1930	2.3 2.4 2.5			2.8 2.6 2.5				2.2 2.1 2.0				1.9 1.8 1.7		1.9 1.8 1.7
:	2100 2230	2.6			2.4			2.2	2.1				1.6		1.6
	2400	2.7	2.7	2.9	2.2	2.5	2.5	2.3	2.2	2.2	2.2	2.0	1.6	1.5	0.9
	DATE FIME	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23
(0130 0300 0430	0.8 0.7 0.7	0.8 1.0 1.1	1.4	1.3	1.6 1.5 1.4	1.2 1.1 1.0	1.3	1.1	1.0 1.0 0.8	0.0	0.0	0.0	0.0	0.0
(0600 0730 0900	0.6 0.5	1.2 1.3 1.4			1.2	1.0 1.1 1.3	1.3 1.2 1.1	1.2 1.3	0.6 0.5 0.4					
:	1030 1200 1330			1.4	1.3 1.4		1.5 1.6 1.5	1.0	1.5 1.5 1.6	0.2 0.2 0.1					
	1500 1630 1800				1.4 1.5 1.6	1.1 1.2 1.3	1.4		1.5 1.4 1.3	0.0					
	1930 2100 2230	0.5 0.6			1.7 1.6	1.4	1.2 1.3		1.2						
:	2400	0.7	1.4	1.3	1.6	1.3	1.3	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0

DATE	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6
0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930 2100 2230	0.0	0.0	0.0	0.0	0.0 0.1 0.2 0.3 0.3 0.4 0.5 0.6	0.7 0.7 0.6 0.6 0.5 0.4 0.3 0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2400	0.0	0.0	0.0	0.0	0.7	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
DATE	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20
0130 0300 0430 0600 0730 0900	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1 0.1 0.0	0.1	0.1	0.0 0.0 0.1	0.0	0.1	0.1
1030 1200 1330 1500 1630 1800 1930 2100 2230								0.0		0.1	0.1	0.0		
2400	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0
DATE	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6
0130 0300 0430 0600 0730 0900	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.1 0.1 0.0	0.1	0.1	0.1	0.1	0.1
1030 1200 1330 1500 1630 1800 1930 2100	0.0 0.1	0.1 0.0			0.1		0.0		0.0 0.1					
2230 2400	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

DATE	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20
TIME														
0130 0300	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
0430									•••					
0600 0730	0.1					0.0	0.1							
0900	0.0					0.1	0.0							
1030 1200														0.0
1330					0.1									0.1
1500					0.0									
1630 1800														
1930	0.0													
2100 2230	0.1													
2400	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1
DATE	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3
TIME 0130	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.5	0.5	0.6
0300										-				0.8
0430 0600														0.8
0730											0.2			1.0
0900 1030			0.1							0.1	0.3			
1200			0.0							0.2				
1330 1500					0.0						0.3			
1630					0.1						0.4			
1800 1930											0.5			1.0
2100													0.5	0.9
2230 2400	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.5	0.5	0.6	
			0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.5	0.5	0.6	0.9
DATE TIME	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17
0130 0300	0.9	1.0	0.7	0.7	0.7	0.7	0.9	0.9	0.8	0.8	0.8	0.8	0.8	
0430		0.9												
0600		0.7						0.9						
0730 0900					0.7			0.8						
1030					0.8								0.8	
1200 1330	0.9				0.8	0.7							End o	
1500	1.0				0.9	0.8							Recor	u.
1630 1800						0.9								
1930														
2100 2230					0.9									
2400	1.0	0.7	0.7	0.7	0.7	0.9	0.9	0.8	0.8	0.8	0.8	0.8		
							358_							

-358-

LAKE HURON - STATION H-6, Depth 15 m. Start 1 November 1965, 1240 EST, end 16 April 1966, 1100 EST. Instrument serial no. 280. Initial cal. Indet., final cal. -2.0°C.

														,
DATE	11-1	11-2	11-3	11-4	11-5	11-6	11-7	11-8	11-9	11-10	11-11	11-12	11-13	11-14
TIME														
0130		8.9	8.8	8.5	8.5	8.2	8.6	8.6	8.4	7.8	7.9	7.7	7.7	7.8
0300			8.8	8.4				8.6	8.4	7.9				
				8.4				8.5	8.3	8.0				
0430			8.7							0.0				
0600			8.6	8.3		8.2		8.4	8.3					
0730			8.6	8.3		8.3			8.2					
0900			8.5	8.2	8.5									
1030				8.1	8.4	8.3			8,2					
1200				8.0		8.5			8.1		7.9			7.8
	8.9			8.0		8.5	8.6		0.1		7.8			7.9
1330	0.9										7.0			1.5
1500				7.9		8.6	8.7							
1630		8.9		7.9	8.4		8.8		8.1					
1800		8.8		8.0	8.3				8.0		7.8			
1930				8.0	8.2						7.7			
2100				8.2	8.0		8.8			8.0			7.7	
2230				8.5	8.0		8.7		8.0	7.9			7.8	
	8.9	8.8	8.5	8.5	8.2	8.6	8.6	8.4	7.9	7.9	7.7	7.7	7.8	7.9
2400	0.9	0.0	0.5	0.5	0.2	0,0	0.0	0.4	1.9	1.5	1.01	1.1	7.0	1.00
DATE	11-15	11-16	11-17	11-18	11-19	11-20	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28
TIME														
0130	7.9	8.0	7.7	7.9	7.8	8.0	8.0	7.0	6.9	6.4	6.5	6.5	6.4	6.0
0300			7.7		7.9			7.0				6.6	6.4	
0430		8.0	7.8		8.0			7.1	6.9			6.7	6.3	
0600	7.9	7.9	,,,		0.0			7.0	6.8			6.8		
0730	8.0	7.9	7.0					6.9	6.7	6.4	6.5	0.0		
	0.0		7.8	7.0				0.5					6 0	
0900		7.8	7.9	7.9					6.6	6.5	6.4		6.3	
1030		7.8	8.0	7.8					6.5		6.4		6.2	
1200		7.7		7.8			8.0		6.4		6.3			
1330		7.7		7.7			7.9	6.9			6.2	6.8		
1500				7.6			7.7	6.8	6.4		6.2	6.7		
1630				7.5			7.5	•••	6.3		6.3	6.6	6.2	
				7.5			7.0	6.8	0.5		6.2	6.6	6.1	
1800													0.1	
1930			8.0	7.4			6.5	6.9	6.3		6.0	6.5		
2100									6.2		6.1			
2230			7.9	7.5			6.7					6.4	6.1	
			7.9	7.5 7.6			6.8		6.2		6.2	6.4	6.0	
2400	8.0	7.7	7.9 7.9		8.0	8.0		6.9		6.5		6.4		6.0
2400			7.9	7.6 7.7			6.8 6.9		6.2 6.3		6.2 6.4	6.4	6.0 6.0	
2400 DATE	8.0 11-29	7.7 11-30	7.9	7.6	8.0 12-3	8.0 12-4	6.8	6.9 12-6	6.2	6,5 12-8	6.2		6.0 6.0	6.0 12-12
2400 DATE TIME	11-29	11-30	7.9 12-1	7.6 7.7 12-2	12-3	12-4	6.8 6.9 12-5	12-6	6.2 6.3 12-7	12-8	6.2 6.4 12-9	6.4 12-10	6.0 6.0 12-11	12-12
DATE TIME 0130	11-29 6.0	11-30 6,2	7.9	7.6 7.7 12-2 6.2		12-4 6.6	6.8 6.9		6.2 6.3 12-7		6.2 6.4	6.4 12-10 4.5	6.0 6.0	
2400 DATE TIME 0130 0300	11-29 6.0 6.0	11-30 6,2 6,3	7.9 12-1	7.6 7.7 12-2 6.2 6.2	12-3 5.6	12-4 6.6 6.7	6.8 6.9 12-5	12-6	6.2 6.3 12-7 6.1 6.2	12-8	6.2 6.4 12-9 6.1	6.4 12-10 4.5 4.5	6.0 6.0 12-11	12-12
DATE TIME 0130 0300 0430	11-29 6.0	11-30 6.2 6.3 6.4	7.9 12-1	7.6 7.7 12-2 6.2 6.2 6.1	12-3 5.6 5.6	12-4 6.6 6.7 6.8	6.8 6.9 12-5 7.0	12-6	6.2 6.3 12-7	12-8	6.2 6.4 12-9 6.1 6.1	6.4 12-10 4.5	6.0 6.0 12-11 4.0	12-12
2400 DATE TIME 0130 0300	11-29 6.0 6.0	11-30 6,2 6,3	7.9 12-1	7.6 7.7 12-2 6.2 6.2 6.1 6.0	12-3 5.6 5.6 5.7	12-4 6.6 6.7	6.8 6.9 12-5 7.0	12-6	6.2 6.3 12-7 6.1 6.2	12-8	6.2 6.4 12-9 6.1 6.1 6.0	6.4 12-10 4.5 4.5	6.0 6.0 12-11 4.0	12-12 5.0
DATE TIME 0130 0300 0430	11-29 6.0 6.0	11-30 6.2 6.3 6.4	7.9 12-1	7.6 7.7 12-2 6.2 6.2 6.1 6.0 6.1	12-3 5.6 5.6	6.6 6.7 6.8 6.9	6.8 6.9 12-5 7.0 7.0 6.9	12-6	6.2 6.3 12-7 6.1 6.2	12-8	6.2 6.4 12-9 6.1 6.0 5.9	6.4 12-10 4.5 4.5	6.0 6.0 12-11 4.0 4.0 4.1	12-12 5.0 5.0
2400 DATE TIME 0130 0300 0430 0600 0730	11-29 6.0 6.0	11-30 6.2 6.3 6.4	7.9 12-1	7.6 7.7 12-2 6.2 6.2 6.1 6.0	12-3 5.6 5.6 5.7	12-4 6.6 6.7 6.8	6.8 6.9 12-5 7.0	12-6	6.2 6.3 12-7 6.1 6.2	12-8	6.2 6.4 12-9 6.1 6.1 6.0	6.4 12-10 4.5 4.5	6.0 6.0 12-11 4.0	12-12 5.0 5.0 4.9
DATE TIME 0130 0300 0430 0600 0730 0900	11-29 6.0 6.0 6.1	11-30 6.2 6.3 6.4	7.9 12-1	7.6 7.7 12-2 6.2 6.2 6.1 6.0 6.1 6.2	12-3 5.6 5.6 5.7	6.6 6.7 6.8 6.9	6.8 6.9 12-5 7.0 7.0 6.9 6.9	12-6 6.8	6.2 6.3 12-7 6.1 6.2	12-8	6.2 6.4 12-9 6.1 6.1 6.0 5.9 5.8	6.4 12-10 4.5 4.5	6.0 6.0 12-11 4.0 4.0 4.1	12-12 5.0 5.0
DATE TIME 0130 0300 0430 0600 0730 0900 1030	11-29 6.0 6.0 6.1	6.2 6.3 6.4 6.5	7.9 12-1	7.6 7.7 12-2 6.2 6.1 6.0 6.1 6.2 6.3	12-3 5.6 5.6 5.7 5.8	6.6 6.7 6.8 6.9	6.8 6.9 12-5 7.0 7.0 6.9	12-6 6.8 6.8	6.2 6.3 12-7 6.1 6.2	12-8	6.2 6.4 12-9 6.1 6.1 6.0 5.9 5.8 5.7	6.4 12-10 4.5 4.5 4.4	6.0 6.0 12-11 4.0 4.0 4.1 4.2 4.3	12-12 5.0 5.0 4.9 4.7
2400 DATE TIME 0130 0300 0430 0600 0730 0900 1030 1200	11-29 6.0 6.0 6.1	6.2 6.3 6.4 6.5	7.9 12-1	7.6 7.7 12-2 6.2 6.2 6.1 6.0 6.1 6.2 6.3	12-3 5.6 5.6 5.7 5.8	6.6 6.7 6.8 6.9	6.8 6.9 12-5 7.0 7.0 6.9 6.9	6.8 6.8	6.2 6.3 12-7 6.1 6.2 6.3	12-8	6.2 6.4 12-9 6.1 6.0 5.9 5.8 5.7 5.6	6.4 12-10 4.5 4.5 4.4	6.0 6.0 12-11 4.0 4.0 4.1 4.2 4.3 4.5	12-12 5.0 5.0 4.9 4.7 4.5
2400 DATE TIME 0130 0300 0430 0600 0730 0900 1030 1200 1330	11-29 6.0 6.0 6.1	6.2 6.3 6.4 6.5	7.9 12-1	7.6 7.7 12-2 6.2 6.1 6.0 6.1 6.2 6.3 6.3	12-3 5.6 5.6 5.7 5.8	6.6 6.7 6.8 6.9 6.9 7.0	6.8 6.9 12-5 7.0 7.0 6.9 6.9	6.8 6.8 6.7 6.6	6.2 6.3 12-7 6.1 6.2 6.3	12-8	6.2 6.4 12-9 6.1 6.0 5.9 5.8 5.7 5.6 5.5	6.4 12-10 4.5 4.5 4.4	6.0 6.0 12-11 4.0 4.0 4.1 4.2 4.3 4.5 4.6	5.0 5.0 4.9 4.7 4.5 4.3
2400 DATE TIME 0130 0430 0600 0730 0900 1030 1200 1330 1500	11-29 6.0 6.0 6.1	6,2 6,3 6,4 6,5	7.9 12-1	7.6 7.7 12-2 6.2 6.2 6.1 6.0 6.1 6.2 6.3 6.3 6.4	12-3 5.6 5.6 5.7 5.8	12-4 6.6 6.7 6.8 6.9 6.9 7.0	6.8 6.9 12-5 7.0 7.0 6.9 6.9	6.8 6.7 6.6 6.5	6.2 6.3 12-7 6.1 6.2 6.3	12-8	6.2 6.4 12-9 6.1 6.0 5.9 5.8 5.7 5.6 5.5	6.4 12-10 4.5 4.5 4.4	6.0 6.0 12-11 4.0 4.0 4.1 4.2 4.3 4.5 4.6 4.8	12-12 5.0 5.0 4.9 4.7 4.5 4.3 4.3
2400 DATE TIME 0130 0430 0600 0730 0900 1030 1200 1330 1500 1630	11-29 6.0 6.0 6.1	6.2 6.3 6.4 6.5	7.9 12-1	7.6 7.7 12-2 6.2 6.2 6.1 6.0 6.1 6.3 6.3 6.3 6.3	12-3 5.6 5.6 5.7 5.8 5.8	12-4 6.6 6.7 6.8 6.9 7.0	6.8 6.9 12-5 7.0 7.0 6.9 6.9 6.8	6.8 6.7 6.6 6.5 6.4	6.2 6.3 12-7 6.1 6.2 6.3	12-8	6.2 6.4 12-9 6.1 6.0 5.9 5.8 5.7 5.6 5.5 5.5	6.4 12-10 4.5 4.5 4.4 4.4	6.0 6.0 12-11 4.0 4.0 4.1 4.2 4.3 4.5 4.6	12-12 5.0 5.0 4.9 4.7 4.5 4.3 4.4
2400 DATE TIME 0130 0430 0600 0730 0900 1030 1200 1330 1500	11-29 6.0 6.0 6.1	6.2 6.3 6.4 6.5 6.6 6.6 6.6	7.9 12-1	7.6 7.7 12-2 6.2 6.2 6.1 6.0 6.1 6.2 6.3 6.3 6.3 6.3 6.3	12-3 5.6 5.6 5.7 5.8 5.8 5.9	12-4 6.6 6.7 6.8 6.9 7.0	6.8 6.9 12-5 7.0 7.0 6.9 6.9 6.8	6.8 6.7 6.6 6.5 6.4 6.3	6.2 6.3 12-7 6.1 6.2 6.3	12-8	6.2 6.4 12-9 6.1 6.0 5.9 5.8 5.7 5.6 5.5 5.5 5.5	6.4 12-10 4.5 4.5 4.4 4.4 4.3	6.0 6.0 12-11 4.0 4.0 4.1 4.2 4.3 4.5 4.6 4.8	12-12 5.0 5.0 4.9 4.7 4.5 4.3 4.3 4.4 4.5
2400 DATE TIME 0130 0430 0600 0730 0900 1030 1200 1330 1500 1630	11-29 6.0 6.0 6.1	6.2 6.3 6.4 6.5	7.9 12-1	7.6 7.7 12-2 6.2 6.2 6.1 6.0 6.1 6.3 6.3 6.3 6.3	12-3 5.6 5.6 5.7 5.8 5.8	12-4 6.6 6.7 6.8 6.9 7.0	6.8 6.9 12-5 7.0 7.0 6.9 6.9 6.8	6.8 6.7 6.6 6.5 6.4	6.2 6.3 12-7 6.1 6.2 6.3	12-8	6.2 6.4 12-9 6.1 6.0 5.9 5.8 5.7 5.6 5.5 5.5 5.5	6.4 12-10 4.5 4.5 4.4 4.4 4.3 4.2	6.0 6.0 12-11 4.0 4.0 4.1 4.2 4.3 4.5 4.6 4.8	12-12 5.0 5.0 4.9 4.7 4.5 4.3 4.4 4.5 4.6
DATE TIME 0130 0300 0600 0730 0900 1200 1330 1500 1800 1930	11-29 6.0 6.0 6.1 6.1 6.0	6.2 6.3 6.4 6.5 6.6 6.6 6.6	7.9 12-1	7.6 7.7 12-2 6.2 6.2 6.1 6.0 6.1 6.2 6.3 6.3 6.3 6.3 6.3	12-3 5.6 5.6 5.7 5.8 5.8 5.9	12-4 6.6 6.7 6.8 6.9 7.0	6.8 6.9 12-5 7.0 7.0 6.9 6.9 6.8	6.8 6.7 6.6 6.5 6.4 6.3	6.2 6.3 12-7 6.1 6.2 6.3	12-8	6.2 6.4 12-9 6.1 6.0 5.9 5.8 5.7 5.6 5.5 5.5 5.5	6.4 12-10 4.5 4.5 4.4 4.4 4.3	6.0 6.0 12-11 4.0 4.0 4.1 4.2 4.3 4.5 4.6 4.8	12-12 5.0 5.0 4.9 4.7 4.5 4.3 4.3 4.4 4.5
2400 DATE TIME 0130 0300 0430 0600 0730 0900 1200 1330 1500 1630 1800 1930 2100	6.0 6.0 6.1 6.1 6.0	6.2 6.3 6.4 6.5 6.6 6.6 6.6	7.9 12-1 6.4	7.6 7.7 12-2 6.2 6.1 6.0 6.1 6.3 6.3 6.4 6.3 6.3 6.4 6.3	12-3 5.6 5.6 5.7 5.8 5.8 5.9 6.0 6.1	12-4 6.6 6.7 6.8 6.9 7.0	6.8 6.9 12-5 7.0 7.0 6.9 6.9 6.8	6.8 6.7 6.6 6.5 6.4 6.3 6.2 6.0	6.2 6.3 12-7 6.1 6.2 6.3	12-8	6.2 6.4 12-9 6.1 6.0 5.9 5.8 5.7 5.6 5.5 5.5 5.5	6.4 12-10 4.5 4.5 4.4 4.4 4.3 4.2	6.0 6.0 12-11 4.0 4.0 4.1 4.2 4.3 4.5 4.6 4.8	12-12 5.0 5.0 4.9 4.7 4.5 4.3 4.4 4.5 4.6
DATE TIME 0130 0300 0600 0730 0900 1200 1330 1500 1800 1930	11-29 6.0 6.0 6.1 6.1 6.0	6.2 6.3 6.4 6.5 6.6 6.6 6.6	7.9 12-1 6.4	7.6 7.7 12-2 6.2 6.2 6.1 6.0 6.1 6.2 6.3 6.3 6.3 6.3 6.3 6.3	12-3 5.6 5.6 5.7 5.8 5.8 5.9	12-4 6.6 6.7 6.8 6.9 7.0	6.8 6.9 12-5 7.0 7.0 6.9 6.9 6.8	6.8 6.7 6.6 6.5 6.4 6.3 6.2	6.2 6.3 12-7 6.1 6.2 6.3 6.3	12-8	6.2 6.4 12-9 6.1 6.0 5.9 5.8 5.7 5.6 5.5 5.5 5.4 4.5 4.5	6.4 12-10 4.5 4.5 4.4 4.4 4.3 4.3 4.2 4.1	6.0 6.0 12-11 4.0 4.0 4.1 4.2 4.3 4.5 4.6 4.8 4.9	12-12 5.0 5.0 4.9 4.7 4.5 4.3 4.3 4.4 4.5 4.6 4.7

LAKE HURON, STATION H-6, 15 m. continued.

DATE	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26
TIME 0130 0300	4.9 5.0	5.0 4.9	5.0	4.9	4.7	4.7	4.7	4.5	4.1	4.1	4.5	4.5	4.5	4.4 4.3
0430		4.8		4.9	4.7	4.7	4.7			4.1				4.3
0600 0730		4.7		4.8	4.8 4.9	4.8	4.6 4.6			4.2				4.2 4.2
0900		4.5					4.5							4.1
1030		4.4			4.9 4.8			4.5	4.1					
1200 1330		4.3 4.0		4.8	4.8			4.4	4.0	4.2				
1500		4.0		4.7	4.9			4.4		4.3				
1630		4.2						4.3						
1800 1930		4.5 4.8		4.7				4.2						
2100		4.8		4.8				.,.		4.3				
2230		4.9		, .	4.9		, -			4.4	, -	, -	, -	
2400	5.0	5.0	5.0	4.8	4.8	4.8	4.5	4.2	4.0	4.4	4.5	4.5	4.5	4.1
DATE	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9
TIME 0130	4.1	3.6	3.6	3.8	4.0	4.2	4.2	3.8	3.2	3.1	3.0	3.4	3.5	3.8
0300	4.0							3.8				3.4		
0430		2.6	3.6	3.8				3.7		2.1		3.5		3.8
0600 0730		3.6 3.5	3.7	3.9	4.0 4.1		4.2	3.6 3.5		3.1 3.0				3.9
0900	4.0						4.1	3.4					3.5	
1030	3.9		3.7				4.1	3.3		2.0			3.6	
1200 1330	3.9		3.8				4.0	3.2 3.1		3.0 3.1			3.6	
1500	3.8				4.1			3.0			3.0		3.7	
1630					4.2			3.0	3.2		3.1 3.2		3.7	
1800 1930	3.8							3.2	3.1		3.2		3.8	
2100	3.7	3.5					4.0				3.3			
2230	2 7	3.6 3.6	2.0	2.0	4.2	4.2	3.9 3.9	2 2	3.1	3.1 3.0	3.3	3.5	3.8	3.9
2400 DATE	3.7		3.8	3.9				3.2			1-20	1-21	1-22	
TIME	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23
0130 0300	3.9	3.4 3.5	3.4	3.4	3.6	3.2	3.2	3.2	3.2	3.2 3.2	3.0	2.6	2.5	2.3
0430	3.9	3.6	3.4							3.1		2.5		2.5
0600	3.8	3.7	3.5		3.6							-,-		2.6
0730	3.7 3.6	3.8	3.5 3.4		3.5									2.7
0900 1030	3.5	3.8 3.7	3.4							3.1				2.8 3.0
1200	3.4	3.6								3.0				
1330 1500	3.3	3.6 3.5		3.4	3.5									3.0
1630	3, 2	3.4		3.5	3.4									2.8
1800	3.1	3.3		3.5	3.4						3.0			2.5
1930 2100	3.1			3.6	3.3						2.9 2.8		2.5	2.3
2230	3.2										2.7		2.4	4.0
2400	3.3	3.3	3.4	3.6	3.3	3.2	3.2	3.2	3.2	3.0	2.6	2.5	2.4	2.0

LAKE HURON, STATION H-6, 15 m. continued.

	AKE IIC	MOIN, D	INITON	11-0,	15 ш.	COHCIN	ueu.							
DATE	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6
0130	2.0	2.2	2.6	2.7	2.9	2.0	2.0	2.3	2.0	2.5	1.9	1.9	1.9	1.9
0300 0430		2.3		2.7	2.8		2.1	2.2		2.4				
0600		2.4		2.8		2.0	2.3	2.2		2.2				
0730				2.9	2.8	2.1	2.4	2.1	2.0	2,1				
0900				3.0	2.7		2.5	2.1	2.1	2.1				
1030 1200	2.0 2.1				2.6 2.6			2.0	2.1	2.0				
1330	2.1				2.5		2.5		2.2					
1500	2.1	2.4			2.4		2.4		2.3					
1630	2.2	2.5			2.4		2.3		2.4	2.0				
1800	2.2				2.3		2.1		2.4	1.9				
1930 2100	2.1	2.5			2.2	2.1 2.0	2.1		2.5					
2230		2.0			2.1	2.0	2.3							
2400	2.1	2.6	2.6	3.0	2.0	2.0	2.3	2.0	2.5	1.9	1.9	1.9	1.9	1.9
DATE	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20
TIME 0130	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
0300	1.9	1.5	1.9	1.9	1.9	1.9	1,5	1.9	1.7	1.7	1,5	1.9	1.5	1.7
0430														
0600														
0730														
0900 1030														
1200														
1330														
1500														
1630 1800														
1930														
2100														
2230														
2400	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
DATE	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6
TIME 0130	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
0300														
0430														
0600														
0730 0900														
1030														
1200														
1330														
1500 1630														
1800														
1930														
2100														
2230	1 0	1 0	1.0	1 0	1.9	1 0	1.9	1.9	1.9	19	1.9	1.9	1.9	1.9
2400	1.9	1.9	1.9	1.9	1.9	1.9	T . 3	1.9	T + 3	1.0	1.9	1.9	1.7	1.3

LAKE HURON, STATION H-6, 15 m. continued.

DATE	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20
TIME 0130 0300 0430 0600 0730 0900 1200 1330 1500 1630 1800 1930 2100 2230	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
2400 DATE	1.9 3-21	1.9 3-22	1.9 3-23	1.9 3-24	1.9 3-25	1.9 3-26	1.9 3-27	1.9 3-28	1.9 3-29	1.9 3-30	1.9 3-31	1.9 4-1	1.9 4-2	1.9 4-3
0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930 2230 22400	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
DATE	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17
0130 0300 0430 0600 0730 0900 1030 1200 1330	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9 1.8 1.8 1.9	1.9	1.9	1.9 1.9 End o	
1500 1630 1800 1930 2100 2230 2400	1,9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9		

LAKE HURON - STATION H-7, Depth 15 m. Start 1 November 1965, 1322 EST, end 16 April 1966, 1205 EST. Instrument serial no. 298. Initial cal. Indet., final cal. -0.6°C.

DATE	11-1	11-2	11-3	11-4	11-5	11-6 11	-7 11-8	11-9	11-10 11-	11 11-12	11-13 1	1-14
TIME												
0130		7.5	7.5	7.0	7.5							
0300		7.6			7.6							
0430				7.0	7.6							
0600			7.5	6.5	7.7							
0730			7.4	6.1	7.7							
0900		7.6		6.1		of record						
1030		7.5		6.8		oyed.						
1200			7.4	7.0								
1330			7.3	7.0								
1500			7.3	7.1								
1630	7.3		7.1	7.1								
1800			7.1	7.2								
1930	1.0		7.2	7.2								
2100			7.1	7.3								, t
2230	7.3			7.3								
2400	7.4	7.5	7.1	7.5								

LAKE HURON - STATION H-8, Depth 10 m. Start 1 November 1965, 1808 EST, end 15 April 1966, 1120 EST. Instrument serial no. 320. Initial cal. Indet., final cal. -0.8°C.

DATE	11-1	11-2	11-3	11-4	11-5	11-6	11-7	11-8	11-9	11-10	11-11	11-12	11-13	11-14
TIME			-											
0130		7.6	7.4	7.4	7.2	7.1	7.1	7.1	7.1	7.1	7.1	7.1	6.7	6.7
0300			7.4									7.1	6.6	6.6
0430			7.5									7.0	6.5	
0600													6.5	
0730													6.6	
0900												7.0		
1030												6.9		
1200		7.6										6.8		
1330		7.5										6.7	6.6	6.6
1500												6.6	6.7	6.7
1630						12.0							6.7	6.8
1800	7.6						P						6.8	6.9
1930		7.5										6.6	6.8	
2100		7.4	7.5	7.4								6.7	6.9	
2230			7.4	7.3								6.9	6.9	
2400	7.6	7.4	7.4	7.3	7.2	7.1	7.1	7.1	7.1	7.1	7.1	6.9	6.8	6.9

LAKE HURON, STATION H-8, 10 m. continued.

	ATE IME	11-15	11-16	11-17	11-18	11-19	11-20	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28
0	130 300 430	6.9	6.6 6.5 6.4	6.5 6.6 6.6	6,9	6.6 6.5 6.6	6.4	6,3 6.4 6.5	6.6 6.5	6.4 6.4 6.3	6.2 6.2 6.1	5.9	5.7	5.8	6.0
C	600 730 900	6.9 6.8 6.7	0,4	6.7 6.8		6.7 6.8		6.6	6.5 6.4	0.5	6.1		5.7 5.8 5.8	5.8 5.7	6.0
1 1 1	.030 .200 .330 .500	6.6 6.6 6.7		6.8	6.9	6.8 6.7 6.6 6.5	6.4 6.3			6.3	6.0	5.9 5.8 5.8 5.7	5.7	5.7 5.8 5.9	6.1
1	.630 .800 .930	6.6	6.4 6.5	6.9	6.8 6.8 6.7	6.6 6.5 6.4	6.3 6.2			6.2			5.7	6.0 6.1	
2	100 230 400	6.6 6.7 6.7	6.5	6.9	6.7	6.4	6.2	6.6	6.4	6.2	6.0 5.9 5.9	5.7	5.8 5.9 5.9	6.1 6.0 6.0	6.1
	ATE	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12
0	130 130 300 430	6.1	6.1	6.1 6.1 6.0	5.6	5.8 5.8 5.9	5.7	5.7	5.9	5.9 5.9 5.8	5.8 5.8 5.7	5.6	5.6	5.5	5.2 5.2 5.3
0	1600 1730 1900 1030				5.6 5.7 5.7 5.8	5.9 5.8	5.7		5.9 5.8				5.6 5.7	5.5 5.6 5.6	5.3 5.2 5.2
1	.200 .330 .500 .630			6.0 5.9 5.9 5.8	5.8 5.9	5.7	5.6 5.6 5.7	5.7				5.6 5.5 5.5		5.5 5.4 5.4 5.3	5.3 5.4
1 2	.800 .930 !100			5.7 5.5 5.4	5.9 5.8			5.8 5.9	5.8 5.9			5.4	5.7	5.3	5.3
	230 400	6.1	6.1	5.5 5.7	5.8	5.7	5.7	5.9	5.9	5.8	5.7	5.4	5.6 5.5	5.2 5.2	5.3
	ATE	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26
0	0130 0300 0430	5.3	5.1	5.2 5.2 5.1	5.1	5.1	5.1	5.0 4.9	4,9	5.0	4.9	4.8	4,1	4.2 4.2 4.1	4.1 4.1 4.2
0	0600 0730 0900 .030					5.1 5.0		4.9 5.0	4.9 5.0	5.0 5.1	4.9 5.0 5.0 5.1	4.8 4.7 4.6 4.5	4.1 4.3		4.2
1	.330 .500 .630	5.3 5.2 5.2								5.1		4.3	4.4		4.3
1 2	.800 .930 .100 .230	5.1	5.1 5.2					5.0 4.9	5.0 5.1	5.0 5.0 4.9	5.1 5.0 4.9 4.9	4.4	4.4 4.3		4.4
	400	5.1	5.2	5.1	5.1	5.0	5.1	4.9	5.1	4.9	4.8	4.1	4.3	4.1	4.5

LAKE HURON, STATION H-8, 10 m. continued.

				1211 1011		10 m.									
	ATE	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9
	IME 130	4.5	4.6			2 7	E 2	c 1	4 0		4.5	4.3	2.0	, 1	, ,
	300	4.5	4.6	4.4	4.3	3.7 3.5	5.2 5.4	5.1	4.9 5.0	4.9	4.5	4.2	3.9	4.1	4.1
	430				4.6	3.4	5.3	5.1	5.0			4.1			
	500			4.4	4.9	J.4	5.3	5.0				4.0			4.1
	730			4.3	4.6	3.4	5.4	3.0				3.9	3.9		4.2
	900			4.2	4.1	3.6	٠					4.0	3.8		7.2
10	030			4.0		3.8						3.9		4.1	
12	200			3.8	4.1	4.0						3.8		4.0	
	330			3.7	4.0	5.2			5.0			3.8	3.8	3.8	
	500			3.8	3.8			5.0	4.9	4.9		3.7	3.9	3.5	
	530	4.5	4.6	3.9	3.9		5.4	4.9		4.8		3.7		3.3	
	300	4.6	4.5				5.3	4.8		4.8	4.5	3.8		3.3	4.2
	930		4.5	3.9		5.2				4.7	4.4		3.9	3.5	4.1
	L00		4.4	3.8		5.3	5.3			4.7		3.8	4.0	3.7	
	230			3.9		5.1	5.2	, .		4.6		3.9	4.1	3.8	
24	100	4.6	4.4	4.1	3.9	5.1	5.1	4.8	4.9	4.5	4.4	3.9	4.1	4.1	4.1
D/	ATE	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23
	IME														
	L30	4.0	4.1	3.9	2.4	4.1	4.1	3.1	3.2	3.9	3.5	3.9	4.0	3.7	3.6
	300	3.9		3.8	2.3					4.0	3.1				
	30 500	3.7 3.5		3.7 3.6	2.4	4.1		3.1			2.9	3.9	, ,		
	730	3.4		3.5	2.7	4.0		2.9			2.0	3.6	4.0 3.9		
	900	3.4		3.4	2.9	4.0		2.8				3.1	3.8		
	30	3.4	4.1	J. 4	3.1		4.1	2.6			2.6	2.6	3.7		
	200	3.8	3.7		3.6		4.0	2.4		4.0	3.0	2.6	3.5		
	330	4.0	3.4	3.4	4.0		3.9	2.1		4.1	3.2	2.6	3.3		3.6
15	500	4.1	3.6	3.3	4.1	4.0	2.3				3.5	2.8	3.4	3.7	3.4
16	30		3.4	3.2		4.1	2.1		3.2		3.8	3.1	3.5	3.5	3.2
	300	4.1	2.9	3.0			2.6		3.3	4.1	3.8	3.3	3.7	3.2	3.1
	30	4.2	3.0	2.9			3.1		3.5	3.5	3.9	3.6	3.8		2.8
	L00	4.2	3.1	2.8				2.1	3.7	3.1		3.8	3.7	3.2	2.6
	230	4.1	3.4	2.6				3.0		3.6		4.0		3.4	3.5
	100	4.1	3.9	2.4	4.1	4.1	3.1	3.2	3.7	3.5	3.9	4.0	3.7	3.6	3.5
	ME	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6
	130	3.2	2.0	3.6	2.4	2.3	1.8	3.4	1.1	1.1	3.1	1.5	1.1	1.1	0.9
	300	2.8	2.0	5.0	2.3	2.2	2.0	3.4			J. 1	1.3	1.1		٠.,
	+30	2.6	2.1			2.1	2.1	3.3				1.1	0.9		
	500	2.8		3.6		2.0	2.3	3.2				1.3		1.1	
	730	3.1		3.4		1.9	2.6	3.2		1.1		1.7	0.9	1.0	
	900	2.7		3.1	2.3	1.7	2.7	2.9		1.3		1.9	1.0	0.9	0.9
	030	2.6	2.1	2.8	2.1	1.5	2.8	2.6		1.5		2.1	1.1	1.0	1.0
	200	2,6	2.3	2.6	1.9	1.4	2.9	2.4		1.7			1.2	1.1	1.1
	330	2.5	2.6	2.5	2.1	1.3	3.1	2.0	1.1	2.1	3.1		1.3	1.0	0.9
	500	2.4	2.8	2.5		1.1		1.9	1.3	2.4	2.9		1 0	0.9	0.8
	630		3.2	2.7			2 1	2.1	1.6	2.6	2.7		1.3	0.8	0.6
	300 930		3.6	2.9 3.1		1.1	3.1	2.0 1.7	1.9	2.9 3.0	2.5	2.1	1.2	0.6	0.6
	130 LOO	2.4		3.0		1.2	3.4	1.3	2.1	3.1	1.9	1.6	1.1	0.0	1,0
	230	2.3		2.9		1.4	J.4	1.1	1.7	J.1	1.7	1.1	1.0		1.1
	400	2.2	3.6	2.6	2.1	1.6	3.4	1.1	1.4	3.1	1.7	0.9	1.0	0.8	1.1
	-														

DATE TIME	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20
0130 0300	1.2 1.2	1.5 1.6	1.5	2.2	1.4 1.2	0.1	2.1 2.1	0.8	0.5	1.0	0.8	0.3	0.8	1.1
0430 0600 0730 0900 1030	1.3 1.2 1.1 1.0 0.9	1.7 1.8 1.9 1.7	1.5 1.4	2.4	1.1 0.8 0.6 0.4 0.2	0.1 0.2 0.4 0.6 0.8	2.2 2.2 2.1	0.9 0.9 1.0 1.1	0.7 0.6 0.7 0.8	1.0	0.8 0.7 0.5 0.3	0.5 0.6 0.4	0.9 0.9 1.0 1.1	1.1 0.9 0.8 0.6 0.4
1200 1330 1500 1630 1800 1930 2100	1.0 1.1 1.1 1.2	1.3 1.1 1.1 1.4 1.6 1.5	1.4 1.3 1.2 1.4	2.4 2.0 1.8 1.6	0.4 0.6 0.6 0.3 0.2	0.8 0.9 1.0 1.1 1.1 1.4	1.8 1.5 1.1 1.0	0.9 0.7 0.6 0.7 0.8 0.9	0.8 0.9 0.9 1.0	0.9 0.8 0.7 0.6 0.5 0.4 0.5	0.2 0.1 0.4 0.6 0.9 0.6 0.1	0.4 0.5 0.7 0.8 0.9	1.1 1.2 1.3 1.5 1.6	0.3 0.3 0.2 0.1
2230 2400	1.3 1.4	1.5	1.8 2.1	1.6	0.1	2.0 2.1	0.8	0.9 0.6	1.0	0.6	0.6 0.2	0.8 0.7	1.4 1.2	0.1
DATE	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6
0130 0300 0430	0.1	0.1	0.2 0.2 0.3	0.9	1.1	1.1	1.1	0.9	0.9	0.9	0.8	0.0	0.3	0.4
0600 0730 0900 1030 1200 1330		0.1 0.2	0.3 0.4 0.5 0.6	0.9 1.0 1.0		1.1 1.2 1.3			0.8 0.7 0.7 0.6	0.8	0.8 0.7 0.6 0.5 0.4 0.3	0.0	0.3 0.4 0.4 0.5 0.6	0.3 0.2 0.1
1500 1630 1800 1930 2100 2230		0.2	0.7	0.9		1.3 1.2 1.1	1.1 1.0 0.9		0.6 0.7 0.8 0.8		0.2	0.2	0.4 0.1 0.1 0.6 0.6	0.1
2400	0.1	0.1	0.9	1.1	1.1	1.1	0.9	0.9	0.9	0.8	0.0	0.3	0.5	0.0
DATE TIME	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20
0130 0300 0430 0600 0730	0.0	0.1	0.1 0.1 0.2 0.3	0.1 0.2 0.2 0.1	0,1	1.1	0.8 0.7 0.6	0.3	0.4 0.4 0.5	0.8 0.8 0.7	0.1	0.2 0.2 0.1	0.1 0.1 0.2	0.2
0900 1030 1200 1330 1500 1630			0.3		0.1 0.2 0.3 0.5		0.6 0.5 0.4 0.3		0.6 0.7 0.8 0.8	0.6 0.5 0.4 0.3		0.1 0.2 0.2 0.2	0.2 0.1	0.2 0.3 0.4
1800 1930 2100 2230 2400	0.0 0.1 0.1	0.1	0.1	0.1	0.7 0.8 1.1	1.1 1.0 1.0 0.9 0.9	0.3 0.2 0.2 0.3	0.3 0.4 0.4	0.9 0.8 0.8	0.4 0.6 0.2 0.1	0.1	0.1	0.1 0.2	0.5 0.6 0.7 0.8 0.9
											-			

LAKE HURON, STATION H-8, 10 m. continued.

DATE	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3
0130 0300 0430	0.9	1.1	0.8	0.6	0.8	1.1	0.7	0.7	0.7	0.7 0.7 0.8	0.8 0.8 0.7	0.3	0.6	0.6
0600 0730 0900 1030 1200			0.8 0.7 0.7	0.6	0.8 0.9 0.9 1.0							0,3		
1330 1500 1630 1800	0.9 0.8 0.8 0.7	1.1 1.0 1.0 0.9	0.5 0.4 0.3	0.7	1.1	1.1 1.0 1.0 0.9	0.7 0.6				0.7 0.6	0.2		
1930 2100 2230 2400	0.7 1.1 1.1	0.9	0.3 0.4 0.5 0.6	0.7	1.1	0.8 0.7 0.7	0.6	0.7	0.7	0.8	0.6 0.4 0.3 0.3	0.1 0.8 0.6 0.6	0.6	0.6
DATE	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17
0130 0300	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.1	1.0	1.0		
0430 0600 0730 0900					0.6					1.1 1.0				
1030 1200 1330 1500 1630				0.6 0.7 0.7 0.8	0.8 0.9 0.8 0.7 0.6				0.6 0.7 0.7 0.8			1.0 End o Recor		
1800 1930 2100 2230 2400	0.6	0.6	0.6	0.8 0.6 0.6	0.6	0.6	0.6	0.6	0.8 0.6 0.6 1.1	1.0	1.0			

LAKE HURON - STATION H-8, Depth 22 m. Start 1 November 1965, 1808 EST, end 15 April 1966, 1120 EST. Instrument serial no. 178. Initial cal. Indet., final cal. -0.7°C.

DATE	11-1	11-2	11-3	11-4	11-5	11-6	11-7	11-8	11-9	11-10	11-11	11-12	11-13	11-14
TIME														
0130		6.9	6.8	6.8	6.8	6.5	6.5	6.5	6.4	6.0	6.0	5.8	5.8	5.6
0300									6.3	5.9				
0430					6.8				6.1		6.0			
0600					6.7				6.0		5.9			
0730					6.6						5.8			
0900					6.5					5.9	5.8			
1030										6.0	5.7			
1200											5.6			5.6
1330														5.4
1500														
1630		6.9											5.8	
1800	7.0	6.8									5.6		5.7	5.4
1930											5.7			5.3
2100											5.8			
2230														
2400	7.0	6.8	6.8	6.8	6.5	6.5	6.5	6.5	6.0	6.0	5.8	5.8	5.7	5.3
DATE	11-15	11-16	11-17	11-18	11-19	11-20	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28
TIME														
0130	5.3	5.2	5.4	5.5	5.3	5.3	5.3	5.4	5.4	5.3	5.2	5.1	5.1	5.1
0300					5.3									
0430		5.2			5.4									
0600		5.1			5.5									
0730		5.2	5.4											
0900		5.2	5.5											
1030		5.3	5.6		5.5						5.2			
1200	5.2	5.4			5.4						5.1			
1330			5.6		5.3									
1500			5.5		5.4									
1630					5.3									5.1
1800				5.5					5.4					5.0
1930				5.4					5.3	5.3				5.0
2100										5.2				4.9
2230	- 0			5.4		- 0	- 0	- ,		- 0				
2400	5.2	5.4	5.5	5.3	5.3	5.3	5.3	5.4	5.3	5.2	5.1	5.1	5.1	4.9
DATE	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12
TIME														
0130	4.9	4.9	4.9	4.6	4.6	4.6	4.6	4.6	4.1	4.2	4.0	4.1	4.1	4.3
0300										4.2				4.3
0430								, ,		4.1				4.2
0600			, ,					4.6	, ,	4.1				4.1
0730			4.9					4.4	4.1	3.9				
0900			4.8					4.2	4.2		4.0		, ,	
1030			, ,					4.1			4.1		4.1	
1200			4.8					, ,		2.0			4.2	
1330			4.7					4.1		3.9			4.2	, 1
1500 1630			4.7					4.2		4.0			4.3	4.1
1800			4.6											4.0
1930														4.0 3.5
2100								4.2						ر ، ر
2230								4.1						3.5
2400	4.9	4.9	4.6	4.6	4.6	4.6	4.6	4.1	4,2	4.0	4.1	4.1	4.3	3.6
2.00	,		4.0	7.0		7.0	4.0			4.0				3.0

LAKE HURON, STATION H-8, 22 m. continued.

1	AKE HU	KUN, S	TATION	н-8,	22 m.	continu	ied.							
DATE	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26
TIME														
0130	3.7	3.6	4.2	4.8	5.0	4.9	4.7	4.4	4.2	3.6	3.7	3.7	4.1	4.2
0300	2 7	3.7	4.2	4.9		4.9				3.7				
0430	3.7 3.5	4.0 4.0	4.9 4.9	5.0		4.8		4.4				0 7		
0730	3.4							4.3				3.7		
0900	3.6	3.9	5.0 5.0					4.3				3.2	4.1	2 2
1030	4.0	3.0	5.1					4.2					4.0	3.2
1200	4.1		J.1						4.2			3.2		4.0
1330	4.2					4.8			3.9			3.6	4.0	4.0
1500	4.3	3.8			5.0	4.7			3.7			3.7	3.9	
1630	4.3	3.7	5.1		4.9				3.8			3.7	3.,	
1800	4.1		5.0						3.9			3.9	3.9	
1930	4.0		4.9				4.7		3.9			4.0	3.8	
2100	4.1		4.8				4.6		3.7			4.1	3.7	
2230	3.5	3.7	4.8				4.5		3.5				3.5	
2400	3.5	4.1	4.6	5.0	4.9	4.7	4.4	4.2	3.6	3.7	3.7	4.1	3.4	4.0
DATE	12-27	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9
TIME														
0130	4.0	3.2	2.9	3.4	3.8	3.8	3.0	3.1	3.3	3.3	3.3	3.3	3.4	3.3
0300 0430		2 2	2.9	3.5			3.0		3.3	3.0	3.5	3.3		
0600		3.2	2.7	3.8		2 0	3.1		3.4	2.8	3.7	3.4		
0730		3.4	2.5	3.9		3.8 3.7	2.9		3.6	2.8		3.5	3.4	
0900		3.4	2.5			2.7	3.0		3.6	2.7			3.3	
1030		3.2	2.4			2.8			3.7			3.5	3.3	3.3
1200	4.0		2.4			2.9						3.4		3.0
1330	3.6		2.3			3.3			3.7					2.9
1500	3.2		2.4			3.2	3.0		3.8					2.7
1630	3.3		2.6	3.9			2.7		3.8					
1800	3.2		2.7	3.8		3.2	3.0		3.9	2.7				
1930	2.7	3.2	2.7			3.1	3.1		4.0	2.9	3.7			
2100	2.7	3.1	2.8			3.2		3.1		3.1	3.3			2.7
2230	2.9	3.1	2.9			3.1		3.2	4.0	3.2				2.8
2400	3.1	3.0	3.1	3.8	3.8	3.1	3.1	3.2	3.9	3.3	3.3	3.4	3.3	2.8
DATE	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23
TIME 0130	2.9	2.2	2 2	2 1	2 2	2.0	1 5	2 2	2.0	1 7	1.0	1.5	1.0	1 2
0130	3.0	2.2	2.2	2.1	3.2	2.0 1.9	1.5	2.3	3.0	1.7	1.9 1.5	1.4	1.0	1.3
0430	3.1	2.2	2.1	2.3		1.8	1.9	2.4	3.0	2.2	1.5	1.4		1.1
0600	2.8	2.3	2.0	2.4		1.6	2.2	2.9	2.9	2.2	1.4	1.3		0.9
0730	2.7	د ، ــ	1.8	2.6		1.3		3.0			1.4	1.3		1.4
0900	-01		1.4	2.7	3.2	1.2		5.0		2.2	1.5	1.4		
1030	2.7		1.3	2.8	3.1		2.2			2.1	1.4			
1200	2.6			3.0	3.0		2.1			2.2	1.4			
1330				3.1	2.9		1.9		2.9	2.3	1.3	1.4		1.4
1500					2.7		1.7		2.8	2.3		1.3		1.5
1630	2.6				2.2		1.6		2.6	2.1	1.3	1.2		
1800	2.5						1.6		2.3	2.2	1.4	1.2	1.0	
1930	2.4		1.3	3.1			1.8		1.8	2.2		1.1	1.1	
2100	2.3		1.6	3.2	2.2	1 2	2.6		1.6	2.4	1.4	1.1	1.2	
2230			1.8		2.1	1.2	2.2		1.4	2.1	1.5	1.0	1.3	
2400	2.3	2.3	2.0	3.2	2.1	1.3	2.2	3.0	1.3	1.9	1.5	1.0	1.3	1.5

		•												
DATE	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6
0130 0300	1.6 1.7	2.2	2.0 1.9	2.0 2.1	2.4	0.6	0.4	1.9	1.4	1.1	0.5	0.9	0.8	1.0
0430		1.9	1.8	2.2		1.4	0.5	2.1		1.1	0.7		0.8	
0600 0730		1.9	1.7 1.6	2.3		1.4 1.1	0.5	2.2	1.4	1.2		0.9	0.6 0.7	
0900		2.0	1.5			0.8	0.6		1.2			0.8	0.7	
1030 1200		2.1			2.4	0.8 0.7	0.6	2.3		1.2 1.1	0.7	0.7	0.9	
1330 1500		1.9			2.3	0.7	0.9			1.0			0.9	
1630		2.2	1.5		2.0	0.6 0.4	$\frac{1.1}{1.2}$			0.9		0.5	0.8	
1800 1930	1.7		1.6 1.3		2.0 1.8		$\frac{1.2}{1.1}$	2.4	1.2 1.3	0.9		0.7	0.8	
2100	2.0		1.5		1.4		1.2	2.3	1.4	0.8			0.8	
2230 2400	2.2	2.2	1.8 1.9	2.4	0.4	0.4	1.3 1.5	2.0 1.7	1.5 1.4	0.6	0.9	0.9	1.0	1.0
DATE TIME	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20
0130 0300	1.0	1.2	1.4 1.3	0.5	0.5	0.5	1.0	1.0 1.1	1.4	1.9 1.8	1.7	1.5	1.3	1.3
0430		1.3	1.2	0.5				1.2		1.7				
0600 0730		1.3	1.1	0.6 0.9				1.3	1.4	1.8	1.7 1.6			
0900		1.4	0.6	1.0				1.7	1.3	1.7	1.0			1.3
1030 1200	1.0 1.1	1.4 1.5	0.5	0.8 0.6	0.5					2.0	1.6			1.2
1330 1500		1.8	0.5		0.6				1.3	1.7	1.5	1.5		1.2
1630			0.6		0.7				1.7 2.2		1.5	1.4		1.1
1800 1930		1.8 1.7	0.9	0.6 0.5	0.6	0.5			2.4		1.6 1.5	1.4		
2100	1.1	1.7	0.7	0.5		0.7			2.1		1.5	1.3		
2230	1,2 1,2	$\frac{1.6}{1.6}$	0.5 0.5	0.5	0.6 0.5	0.8	1.0	1.4	2.0	1.7	1.5	1.3	1.3	$\frac{1.0}{1.1}$
DATE	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6
TIME 0130			-											
0300	1.2	1.0	0.8 0.7	0.1	0.5	0.3	0.5 0.5	0.1	0.4	0.3	0.5	0.4	0.9 1.3	1.4
0430 0600			0.6 0.5	0.2		0.6	0.3		0.3	0.4	0.3		1.3 1.2	
0730				0.4			0.1		0.3	0.5	0.2		1.2	
0900 1030	1.2		0.5						0.2		0.2	0.3	1.1	1.4
1200 1330	1.1				0.5	0.6					0.3	0.5		1.5
1500	1.1				0.4	0.5					0.4	0.5	1.4	
1630 1800			0.3		0.2							0.4		
1930			0.1	0.4								0.4	1.2	
2100 2230		1.0		0.5				0.1				0.5	1.3	
2400	1.0	0.9	0.1	0.5	0.2	0.5	0.1	0.3	0.2	0.5	0.5	0.6	1.4	1.5
							-370-							

-370-

LAKE HURON, STATION H-8, 22 m. continued.

-		11011,	1111 101	0,		COILCII	ucu.							
DATE	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20
TIME 0130 0300	1.5	1.2	0.6	0.6	1.1 1.2	0.9	0.6	0.4	0.5	0.6	0.6	1.1	1.1	1.3
0430 0600 0730		0.8 0.7			1.3	0.6	0.6	0.4		0.5			1.1 1.2	1.3
0900 1030 1200 1330	1.5 1.4	0.7					0.4	0.5	0.5	0.5 0.6		1.1 1.2	1.2 1.3	1.2
1500 1630 1800	1.4				1.3 1.2			0.6 0.5	0.0				1.3 1.4	1.2 1.1
1930 2100 2230 2400	1.3 1.3 1.2	0.6	0.6	0.6 0.7 0.8 1.0	1.2 1.1 1.0 1.0	0.6	0.4	0.5	0.6	0,6	0.6 0.7 0.9	1.2 1.1 1.1	1.4 1.3	1.1
DATE	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3
TIME 0130 0300	1.1	0.9 1.0	1.0	1.1	1.2 1.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
0430 0600 0730 0900		1.0	1.1		1.3	1.2								
1030 1200 1330 1500 1630 1800 1930 2100	1.1 1.0 0.9 0.8			1.1	1.4 1.2 1.2									
2230				1.2										
2400 DATE	0.8 4-4	1.0 4-5	1.1 4-6	1.2 4-7	1.1 4-8	1.2 4-9	1.1 4-10	1.1 4-11	1.1 4-12	1.1 4-13	1.1 4-14	1.1 4-15	1.1 4-16	1.1
TIME	4-4	4-3	4-0		4-0	4-9				4-13	4-14	4-13	4-10	4-17
0130 0300 0430 0600 0730	1.1	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9		
0900 1030 1200 1330 1500 1630	1.1 1.0		1.0									0.9 End o Recor		
1800 1930 2100 2230 2400	1.0	1.0	0.9	0,9	0.9	0.9	0.9	0.9	0.9	0.9	0.9			

LAKE HURON - STATION H-8, Depth 30 m. Start 1 November 1965, 1808 EST, end 15 April 1966, 1120 EST. Instrument serial no. 244. Initial cal. Indet., Final cal. -0.7°C.

DATE	11-1	11-2	11-3	11-4	11-5	11-6	11-7	11-8	11-9	11-10	11-11	11-12	11-13	11-14
TIME 0130		7.1	6.9	6.9	.70	6.8	6.8	6.9	6.7	6.1	6.1	6.0	6.1	6.0
0300		7.1	0.9	0.9	. / 0	0.0	0.0	0.9	6.6	0.1	0.1	6.1	0.1	0.0
0430		7.1		6.9	7.0				6.2			0.1		
0600		7.0		7.0	6.9				6.1					
0730		,		,	6.9						6.1			6.0
0900					6.8				6.1		5.9			5.9
1030					6.8				6.2		5.7			
1200					6.9				6.3					
1330									6.2					5.9
1500									6.1					5.8
1630														5.7
1800	7.1													5.6
1930							6.8				5.7			5.5
2100					6.9		6.9				5.8			
2230					6.8			6.9			5.9		6.1	5.5
2400	7.1	7.0	6.9	7.0	6.8	6.8	6.9	6.8	6.1	6.1	6.0	6.1	6.0	5.4
DATE	11-15	11-16	11-17	11-18	11-19	11-20	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28
TIME	5.4	5 2		= 0	5.5		5.4	c /	E 2	E 2	E 2		5.1	5.1
0130 0300	3.4	5.3	5.5	5.9	5.4	5.5	5.4	5.4	5.3	5.3	5.3	5.2	5.1	3.1
0430	5.4				5.3									
0600	5.4				ر , ر						5.3			
0730	5,5			5.9				5.4			5.2			
0900			5.5	5.8				5.3			3.2			
1030			5.6	3,0	5.3	5.5		3.3						
1200			5.6		5.4	5.4								
1330			5.7		5.5							5.2		
1500		5.3	5.8		5.6							5.1		
1630		5.4		5.8	5.6									
1800				5.7	5.5									
1930					5.3									
2100					5.4									
2230	5 0	5.4	5.8	5.7	5.5	- ,		<i>-</i> 0	5 O	<i>5</i> 0	5 O			c 1
2400	5.3	5.5	5.9	5.6	5.5	5.4	5.4	5.3	5.3	5.3	5.2	5.1	5.1	5.1
DATE	11-29	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12
TIME 0130	5.2	5.1	5.0	5.0	5.0	5.0	5.1	5.0	4.2	4.6	4.3	4.4	4.4	4.5
0300	J. Z	J.1	5.0	٥.0	5.0	5.0	5.1	5.0	4.3	4.7	4.3	4.4	4.4	4.3
0430						5.1	5.0	5.1	7.3	4.6				
0600	5.2							J.1		4.6				
0730	5.1									4.5				
0900								5.1		4.4				
1030		5.1						5.0		4.3				
1200		5.0						5.0	4.3	4.2	4.3		4.4	4.5
1330								4.4	4.4	4.1	4.4		4.5	4.4
1500								4.3						4.3
1630										4.1				4.2
1800										4.2				
1930									, ,	, ,				4.2
2100 2230									4.4 4.5	4.2				4.1
2400	5.1	5.0	5.0	5.0	5.0	5.1	5.0	4.3	4.5	4.3	4.4	4.4	4.5	3.7
	J . T	5.0	5.0	5.0	200	J.1	2.0	7.3	7.5	7.3	7.7	7.4	7.5	3.7

DATE	12-13	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26
TIME 0130 0300 0430	3.4 3.4 3.5	4.2 3.7 3.7	4.0 4.2 4.2	5.1 5.1 5.0	5.2	5.0	5.1	4.8 4.7 4.7	4.4	3.6 3.9	4.1	4.2 4.2 4.1	4.3	3.3
0600 0730 0900 1030 1200	3.7 3.8 3.9 4.0 4.0	3.9 4.2 4.2 4.1	4.6 4.7 5.0 5.2	5.0 5.1 5.1 5.2	5.2 5.1 4.8 4.5 4.8			4.6 4.5 4.4	4.4	3.9 4.0 4.1		3.8 3.3 3.3 3.4 3.8		3.3 3.8 4.1 4.3
1330 1500 1630 1800	3.7 3.7 4.2 4.5	3.9	5.2 5.3		5.0				4.3 4.3 3.8 3.8		4.1 4.2	4.0 4.2 4.2	4.3	
1930 2100 2230	4.6 4.6 4.4	2.0	5.3 5.2	F 2	F 0	5.0 5.1	5.1	, ,	4.0 4.2 3.9			4.3	4.2 4.0 3.9	
2400 DATE	4.2 12-27	3.9	5.2	5.2	5.0 12-31	5.1	5.0 1-2	4.4 1-3	3.3 1-4	4.1	4.2 1-6	4.3	3.4 1-8	4.3
TIME		14-20			12-31		1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9
0130 0300 0430	4.3	3.8	2.7 2.8 2.8	4.2	4.2	3.8 3.3 3.3	3.3	3.2	4.1	2.8	4.1	3.8	3.5 3.6	3.1 3.0 3.0
0600 0730 0900		3.8 3.4 3.3	2.7 2.5 2.5	4.2		3.4 3.5 3.4			4.1 4.2	2.8	4.1	3.8 3.7		2.8 2.8 2.9
1030 1200 1330	4.3 4.2 3.3		2.6 2.7 2.8	4.1 4.1 4.2		3.3 3.2 3.2		3.2		2.9 3.0 3.2	4.0 3.4 3.3			2.9
1500 1630 1800	3.6 3.2 2.8	3.3	2.9 3.1 3.3			3.3	3.3 3.2 3.3	3.3	4.2 3.8 3.2	3.3 3.3 3.7	3.3			3.0 3.1 3.1
1930 2100 2230	2.8 3.0 3.3	3.2 3.1	3.8 3.9 4.0		4.2 4.1		3.2	3.4 3.8 4.0	3.0 2.9 2.8	3.9 4.1	3.8	3.7 3.5	3.6	2.9 2.7 2.6
2400	3.7	2.9	4.1	4.2	4.0	3.3	3.2	4.0	2.8	4.1	3.8	3.5	3.2	2.6
DATE	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23
0130 0300 0430	2.5	2.4	1.5	3.2	2.3 2.3 2.2	1.8 1.3 1.3	2.8 3.0 3.1	3.3	1.7	2.6 2.7 2.3	1,9	1.2	1.4 1.4 1.3	1.9
0600 0730 0900 1030	2.5 2.4 2.3	2.3 2.6 2.6	1.5 1.8 2.1 2.3	3.3	2.2 2.1 2.0 1.9	1.4 1.6 1.7 2.0	3.1 2.8 2.8	3.3	1.5 2.3 2.4	2.1 2.2 2.2 1.8	1.9 1.6 1.4		1.4	2.1 2.0 2.0
1200 1330 1500	2.3 2.2 2.3	2.4 2.3 2.2	2.4 2.6 2.7	3.3	1.8 1.6 1.3	2.3	3.0 3.1 3.2	3.1	2.4	1.6 1.7 1.6	1.5		1.6 1.7	2.1 2.2 2.2
1630 1800 1930	2.3	2.2 2.1 1.9	2.8 2.9 3.0	3.4	1.3 1.2	2.4	3.3	3.1	2.5 2.4 2.5	1.4	1.4 1.4 1.3		1.7 1.9	2.1 2.1 2.2
2100 2230 2400	2.4	1.6 1.5 1.5	3.1 3.1 3.2	3.3 3.0 2.3	1.2 1.3 1.3	2.1 2.0 2.3	3.3	2.8 2.4 2.2	2.4	1.5 1.6 1.8	1.2	1.2 1.4 1.4	1.9	2.3 2.4 2.4

LAKE HURON, STATION H-8, 30 m. continued.

DATE	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6
0130 0300	2.2	2.0 1.9	2.4	2.7 2.6	1.4 1.2	1.3 1.2	2.5	1.2	1.3 1.2	1.3	0.5 0.5	1.0 1.2	1.3	1.3
0430 0600 0730	2.0 2.1 2.3	1.8 1.9 2.4	2.5 2.6 2.7	2.6 2.5		1.2 1.3 1.3		1.2 1.3 1.3	1.2 1.1 1.1		0.7 0.9	1.3		1.3 1.4
0900 1030 1200	2.3 2.2 2.2		2.8	2.4 2.3 2.3	1.2 1.4 1.3	1.4 1.4 1.3	2.5 2.4 1.9	1.5 1.6 1.7	1.0 0.9 0.5		0.9 0.7 0.8			1.4
1330 1500 1630	2.4 2.4 2.5	2.4		2.0 1.4	1.4	1.4 1.5	1.6	1.8 1.6	0.6		0.9	1.3 1.2		1.8 1.8
1800 1930	2.5	2.2		0.5 1.3 1.4		1.9 2.3 2.4	1.4	1.3	0.8 0.9 1.0	1.3	0.9	1.3		1.9 2.0 2.1
2100 2230 2400	2.4 2.2 2.1	2.2 2.3 2.3	2.8 2.7	1.4 1.9 1.9	1.4	2.4	1.3 1.1 1.0	1.4	1.1 1.2 1.2	1.1 0.7 0.6	1.3	1.3	1.3	2.0 1.9 1.8
DATE	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20
0130 0300 0430	1.7	1.4	0.4	0.9	1.4	1.9	1.5	2.5	1.9	1.5	1.4	1.0	1.3 1.2	1.2
0600 0730	1.5 1.5 1.4	1.2 1.3 1.3	0.4 0.5 0.6	1.6 1.8 1.5	1.4	1.7 1.7 1.6	1.5	2.6 2.5	1.9	1.5 1.4 1.3		1.0		
0900 1030 1200	1.3 1.2 1.1	1.4	0.7 1.4 1.4	1.3 1.3 1.1	1.8 1.8 1.4	1.5	1.7 2.4 2.7	2.3 2.4 2.3	2.0 2.1 1.9	1.3		1.2		1.2 1.0 0.8
1330 1500 1630	0.6		1.5 1.6 1.7	0.6	1.4	1.5	2.8 2.8 2.5	2.1 2.0	1.6 1.5					0.6
1800 1930 2100	1.0 1.3	1.4	1.6	0.6 0.9 1.1	1.4	1.6	2.4 2.3 2.1				1.4			
2230 2400	1.3	0.8	1.4	1.2	1.4	1.5	2.0	2.0	1.5	1.4	1.3	1.3	1.2	0.5
DATE TIME	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6
0130 0300 0430	0.4	0.5	0.4	0.6	0.4	0.4 0.5 0.6	0.5	0.5	0.6	1.5	1.7	1.5	0.9	0.5
0600 0730 0900			0.4	0.5			0.7		0.6 1.0 1.1				0.9	
1030 1200	0.7		0.6 1.2 1.3	0.4		0.6 0.5		0.5		1.5		1.5	0.6	
1330 1500 1630	0.4		1.3 1.2 1.1					0.6	1.1 1.0 0.8	1.4	1.7 1.6	1.4 1.3		
1800 1930 2100			0.9					0.8	0.8 1.0 1.5	1.5	1.6	1.3 1.2		0.5 0.6
2230 2400	0.5	0.5	0.6	0.4	0.4	0.5	0.6 0.5	0.6 0.6	1.5	1.5 1.6	1.5 1.5	1.1	0.5	0.6

DATE	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20
0130	0.6	1.4	1.0	0.5	0.6	0.6	0.7	1.5	1.6	1.6	1.5	0.9	1.4	1.6
0300	0.8		0.9					1.5				0.9	- ·	
0430 0600	0.6	1.4	0.5				0.7	1.6			1.5	1.0	1.4	
0730	0.7	1.3					0.8				1.7		1.5	
0900	0.8	1.2					0.8				1.4	1.0		
1030	1.0	1.0					1.3			1.6	1.3	1.1		
1200 1330	1.3	0.8					1.6			1.5	1.1	1.2		
1500	1.5	0.6					1.7				1.0	1.3		
1630											0.9			1 6
1800 1930							1.7						1.5	1.6 1.7
2100							1.6						1.6	
2230						0.6	1.6					1 0		1.7
2400	1.5	0.6	0.5	0.5	0.6	0.7	1.5	1.6	1.6	1.5	0.9	1.3	1.6	1.6
DATE TIME	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3
0130	1.6	1.4	1.3	1.3	1.4	1.5	1.5	1.2	1.1	1.0	0.9	1.0	0.9	1.0
0300		1.4				1.6		1.2						
0430 0600		1.3					1.5 1.4	1.1	$\frac{1.1}{1.0}$					
0730							1.04		1.0					
0900														
1030 1200	1.6 1.5						1.4				0.9		0.9	
1330	1.4						1.3				1.0		1.0	
1500					1.4									
1630 1800				1.3	1.5	1.6								
1930				1.4		1.5	1.3							
2100							1.2					1.0		
2230	1 /	1 2	1 0	1 /	1 6	1 5	1.2	1.1	1.0	1.0	1.0	0.9	1.0	1.0
2400	1.4	1.3	1.3	1.4	1.5	1.5								
DATE	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17
0130	1.0	1.1	1.3	1.3	1.3	1.3	1.3	1.4	1.7	1.7	1.7	1.8		
0300		1.2	1.4								1.7			
0430 0600								1.4			1.8			
0730			1.4					1.6						
0900		1.2	1.3											
1030		1.4										1.8		
1200 1330												End o	of	
1500		1.4							1.7			Recor	d.	
1630	1.0	1.2					1.3	1.6	1.6					
1800 1930	1.0						1.4	1.7						
2100								1.8	1.6					
2230	1 1	1 0	1 2	1.3	1.3	1.3	1.4	1.8	1.7 1.7	1.7	1.8			
2400	1.1	1.2	1.3	Τ	1.0	т. Э	1.4	1.0	1.,	1.,	1.0			

LAKE HURON - STATION H-9, Depth 10 m. Start 2 November 1965, 0922 EST, end 14 April 1966, 0845 EST. Instrument serial no. 128. Initial cal. Indet., Final cal. -1.0°C.

DATE	11-2	11-3	11-4	11-5	11-6	11-7	11-8	11-9	11-10	11-11	11-12	11-13	11-14	11-15
TIME 0130 0300		7.9	7.9 7.8	7.9	7.9	7.8	7.8	7.7 7.6	7.3	7.3	7.3	7.3	7.0	6.7 6.8
0430 0600			8.0								7.3 7.2	7.3 7.2	7.0 6.6	
0730 0900	7.7										7.1 7.2		6.7	
1030 1200	7.8 7.9										7.2	7.2		
1330 1500							7.8 7.7				7.0	7.1		
1630 1800 1930							/./	7.6 7.5			7.3	6.9		6.8
2100 2230								7.4		7.3 7.5		7.2 7.1		6.9
2400	7.9	7.9	8.0	7.9	7.9	7.8	7.7	7.4	7.3	7.4	7.3	7.1	6.7	6.8
DATE TIME	11-16	11-17	11-18	11-19	11-20	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28	11-29
0130 0300	6.8	6.6	6.0	5.8	5.8	5.8	5.7 5.6	5.8 5.8	5.8	5.9	5.9	5.8 5.7	5.1 5.0	5.2 5.3
0430	0.7	6.4	5.9				3.0	5.9			5.9	5.3	5.1	5.3
0600 0730											5.8	5.5 5.4	5.2	5.4 5.5
0900 1030			5.9								5.8	5.7 5.8		
1200			5.8								5.7	3.0	- 0	
1330 1500							5.6 5.7	5.9	5.8		5.7		5.2 5.3	5.5
1630 1800		6.4						6.0	5.9		5.6 5.7	5.8 5.7	5.2 5.3	5.4
1930		6.2				5.8					5.8	5.7	5.2	5.5
2100 2230		6.2				5.7		6.0 5.9				5.4 5.4		
2400	6.7	6.0	5.8	5.8	5.8	5.7	5.7	5.8	5.9	5.9	5.8	5.2	5.2	5.3
DATE TIME	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13
0130 0300	5.3	5.2	5.0 5.0	5.2 5.2	5.3	5.1	4.9	5.0	5.0	5.0	5.1	5.1	4.8	4.4
0430		5.2	5.1	5.1						5.0				
0600 0730		5.1		5.0	5.3	5.1 5.0				5.1				
0900 1030				5.0 4.8	5.1 5.1							5.1 5.0		
1200 1330		5.1 5.0		4.7	4.9							3.0	4.8 4.7	
1500		5.0	5.1	5.0								5.0	4.7	
1630 1800			5.2	5.3 5.3	4.9	5.0						5.0 4.9	4.6	
1930 2100			5.2 5.1	5.1 5.3	5.0 5.1	4.9							4.4	
2230 2400	5.3	5.0	5.1	5.3	5.1	4.9	4.9	5.0	5.0	5.1	5.1	4.9	4.4	4.4

LAKE HURON, STATION H-9, 10 m. continued.

L	AKE HUI	KON, S.	TATION	н-9,	LU m.	COULTIN	iea.							
	12-14	12-15	12-16	12-17	21-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27
TIME														
	4.5	4.2		4.4	4.7	3.4	3.5	3.8	4.2	3.3	3.9	3.7	3.3	3.1
0300	4.6	4.2	5.1	4.4				3.7	3.8		3.9	3.4	3.3	
0430	4.5	4.3	5.0	4.3	4.7			4.0	3.4	3.3	4.2	3.3	3.4	
0600	4.3	4.3		4.2	4.6		3.5	3.9	3.5	3.5	4.3	3.3	3.7	3.1
0730	4.3	4.4		4.3	4.4	3.4	3.4	3.8	3.5	3.6		3.0	3.9	2.9
0900		4.5		4.5	4.3	3.5		4.0	3.6	3.7		3.2		
1030	4.2	4.7		4.6	4.2			4.1	3.7	3.7		3.3		
1200		4.8			4.0			4.0	3.7	3.6		3.4	3.9	
1330		4.7			3.7		3.4	3.9	3.5	3.5			3.7	2.9
1500	4.7	4.6			4.0		3.3	3.9	3.4	3.5	4.3	3.4	3.5	3.0
1630	4.2			4.6	4.2			4.0		3.8	4.4	3.3	3.3	3.0
1800				4.7	4.4			4.1					3.2	2.9
1930		4.6			4.2			4.2	3.4	3.8				3.0
2100		4.7	5.0		3.5	0 5	0 0	4.2	3.3	3.9	4.4			3.1
2230		4.9	4.8		3.4	3.5	3.3	4.1			4.3	0 0		3.3
2400	4.2	5.0	4.6	4.7	3.4	3.4	3.5	4.2	3.3	3.9	4.1	3.3	3.2	3.4
DATE	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10
TIME 0130	3.4	2.7	2.9	3.0	3.3	2.8	2.6	3.3	2.9	3.2	3.1	2.8	2.6	2.3
0300	3.4	2.07	2.9	5.0	٠,٠	2.9	3.0	3.3	2.7	3.3	2.7	2.0	2.6	2.5
0430	3.3		2.8			3.0	3.0			3.3	2.6		2.5	
0600	3.3		2.6		3.3	3.1					2.6	2.8	2.4	
0730	3.1		2.5		3.1			3.3			2.7	2.7		
0900	2.6			3.0	2.9			3.2					2.4	2.3
1030	2.5		2.6	2.9	2.8	3.1		3.1	2.9				2.3	2.4
1200		2.7	2.8		2.6	3.0		3.0	3.0					2.5
1330		2.9	2.8					2.9				2.7		2.5
1500		3.0	2.9			3.0				3.3		2.6		1.6
1630		3.0	3.0	2.9		2.9	3.0			3.4	2.7			1.4
1800		2.9		3.0	2.6	2.8	2.7		3.0	3.4	2.8			1.4
1930				3.3	2.5	2.7	2.3		3.1	3.5				1.3
2100						2.6	2.8		3.1			2.6		
2230	2.5				2.5	2.5	2.5		3.2	3.5		2.7		
2400	2.7	2.9	3.0	3.3	2.8	2.5	2.6	2.9	3.2	3.4	2.8	2.6	2.3	1.3
DATE	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24
TIME 0130	1.4	2.3	2.3	2.2	2.4	2.4	2.4	2.4	2.5	2.5	2.4	1.6	1.5	1.6
0300	1.4	2.2		2.3	2.1	2.7	2.7	2.7	2.5	2.5	2.3	1.0	1.5	1.7
0430	1.4	2.2		2.4	1.8		2.4				2.5			
0600	2.1	2.2	2.3	2.4	1.9		2.3					1.6		
0730	2.2	2.3	2.0		2.1		2.5			2.5		1.5		
0900	2.3	2.5	1.9			2.4				2.4	2.3	2.0		
1030	2.5		1.9			2.3					2.5			
1200			1.7			5					_,,			
1330	2.3		1.6							2.4	2.5			
1500	2.4		1.7							2.5	2.4			
1630	2.4		1.8		2.0					2.5	2.4			
1800	2.5		1.9		2.4					2.4	2.3			
1930	2.5		2.2								2.0			
2100	2.4		2.1								1.8			
2230	2.4										1.7			
2400	2.3	2.3	2.1	2.4	2.4	2.3	2.3	2.4	2.5	2.4	1.6	1.5	1.5	1.7

LAKE HURON, STATION H-9, 10 m. continued.

			, -		,										
	ATE	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7
	TIME 0130	1.8	1 5	1.4	1.5	1.5	1.5	1.5	1.6	1.6	1 6	1 6	1 6	1 (1.0
	0300	1.0	1.5	1.4	1.5	1.5	1.5	1.5	1.0	1.0	1.6	1.6	1.6	1.6	1.9
	0430														
	0600														
	0730	1.8													1.9
	900	1.7													1.8
- 1	L030	1.5												1.6	1.8
	L200													1.7	1.7
	L330		1.5											1.7	1.7
	L500		1.4											1.8	1.6
	L630													1.9	
	L800 L930													1.9	
	2100				1.5				1.6					1.8 1.9	
	2230				1.4				1.5					1.9	
	2400	1.5	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.9	1.6
	DATE	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21
	TIME	2-0	2-3	2-10	2-11	2-12	2-13	2-14	2-13	2-10	2-1/	2-10	2-15	2-20	2-21
	130	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5
	0300														
	0430														
	0600														
	0730 0900														
	L030									1.6					
	L200									1.5					
	L330									1.5					
	L500														
- 1	L630														
	L800							1.6							
	L930							1.5							
	2100														
	2230 2400	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.6	1.5	1.5	1.5	1.5	1.5	1 5
•	-400	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.0	1.5	1.5	1.5	1.5	1.5	1.5
	ATE	2-22	2-23	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6	3-7
	TIME 0130	1.7	1.7	1.6	1 7	1 7	1 7	1 -							
	300	1/	1./	1.0	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	0430														
	0600														
	730														
(900														
	L030														
	200														
	1330														
	L500														
	L630 L800														
	1930														
	2100														
	2230														
2	2400	1.7	1.7	1.6	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8

_		,	111111011	/,	TO III.	CONCIN	aca.							
DATE	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21
TIME														
0130	1.8	1.8	1.8	1.9	1.9	2.0	1.9	2.1	2.1	2.1	2.2	2.3	2.4	2.4
0300 0430														
0600														
0730														
0900														
1030														
1200														
1330														
1500														
1630														
1800 1930														
2100														
2230														
2400	1.8	1.8	1.8	1.9	1.9	2.0	1.9	2.1	2.1	2.1	2.2	2.3	2.4	2,4
DATE	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4
TIME 0130	2 5	0.0		1.0	2.0	1.0		0 1	0.1	0.0	0 0			0.6
0300	2.5	2.3	2.3	1.9	2.0	1.9	2.0	2.1	2.1	2.2	2.3	2.3	2.3	2.6
0430									2.2					
0600	2.5												2.3	
0730	2.4												2.4	
0900														
1030														
1200													2.4	
1330			2 2										2.5	
1500 1630			2.3											
1800			2.1											
1930	2.4		2.0											
2100	2.3		2.0											
2230			1.9											
2400	2.3	2.3	1.9	1.9	2.0	1.9	2.0	2.1	2.2	2.2	2.3	2.3	2.5	2.6
DATE	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18
TIME 0130	2.8	2.9	3.0	2.0	3.0	3.1	3.3	3.3	3.4	3.4				
0300	2.0	2.9	3.0	3.0	3.0	3.1	3.3	3.3	3.4	3.4				
0430														
0600														
0730										3.4				
0900	2.8					3.1				End o				
1030	2.9					3,2				Recor	d.			
1200														
1330 1500														
1630						3.2		3.3						
1800						3.3		3.4						
1930														
2100					3.0									
2230	0.0	2.9	2 0	2.0	3.1	2 2	2 2	2 /	2 /					
2400	2.9	3.0	3.0	3.0	3.1	3.3	3.3	3.4	3.4					

LAKE HURON - STATION H-9, Depth 15 m. Start 2 November 1965, 0922 EST, end 14 April 1966, 0845 EST. Instrument serial no. 152. Initial cal. Indet., Final cal. -1.0°C.

DATE	11-2	11-3	11-4	11-5	11-6	11-7	118	11-9	11-10	11-11	11-12	11-13	11-14	11-15
0130		7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6 7.5	7.5	7.3	7.3	7.3	7.2
0300 0430 0600 0730 0900 1030	7.3 7.4								7.5	7.5 7.3			7.3 7.2 7.1 7.2	
1200 1330 1500 1630 1800 1930 2100 2230	7.5 7.6												7.2 7.1 7.2	
2400	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.5	7.3	7.3	7.3	7.2	7.2
DATE TIME	11-16	11-17	11-18	11-19	11-20	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28	11-29
0130 0300	6.8	6.7	6.7	6.7 6.7	6.6	6.5 6.4	5.7	5.7	5.7	5.7	5.6	5.4 5.4	5.6	5.5
0430 0600	6.8			6.6		6.3 6.2					5.6 5.5	5.5		
0730 0900	7.0				6.6	6.1 5.9							5.6	
1030 1200 1330					6.5	5.9 5.8					5.5 5.4		5.5	
1500 1630	7.0					3.0						5.5 5.6		
1800 1930	6.8									5.7 5.6		3.0		
2100 2230	6.8 6.7					5.8 5.7								
2400	6.7	6.7	6.7	6.6	6.5	5.7	5.7	5.7	5.7	5.6	5.4	5.6	5.5	5.5
DATE TIME	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13
0130 0300 0430	5.5	5.5	5.4	5.3	4.6	4.6	4.6	4.6	4.6	4.6 4.6 4.5	4.5	4.6	4.4	4.4
0600 0730 0900 1030			5.4	5.3 5.2 5.0								4.6 4.5 4.3		
1200 1330 1500			5.1	4.9 4.8 4.6							4.5	4.2 4.0 4.3		
1630 1800 1930 2100		5.5 5.4	5.1 5.3	4.5 4.6							4.6	4.5		
2230 2400	5.5	5.4	5.3	4.6	4.6	4.6	4.6	4.6	4.6	4.5	4.6	4.4	4.4	4.4

LAKE HURON, STATION H-9, 15 m. continued.

		,		, .										
DATE	12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27
TIME 0130	4.4	4.4	4.3	4.3	4.3	.43	4.3	4.2	3.9	3.8	3.7	3.1	3.3	2.0
0300	4.4	4.4	4.3	4.3	4.3	.43	4.3	4.2	3.9	3.0	3.7	3.1	3.3	3.0 2.8
0430														2.8
0600														2.9
0730														3.0
0900								4.2						
1030								4.1				3.1		
1200		4.4										3.2		3.0
1330		4.3										3.2		3.1
1500										3.8		3.3		
1630								4.1		3.9	3.7			3.1
1800								4.0			2.8		3.3	3.2
1930									3.9		2.9		3.0	
2100									3.8	3.9	2.9			
2230										3.8	3.0			
2400	4.4	4.3	4.3	4.3	4.3	4.3	4.3	4.0	3.8	3.8	3.1	3.3	3.0	3.2
DATE	12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10
TIME 0130		0.7	3.1	0 1	3.5	3.6	3.0	3.1	3.6	2.6	2.8	2.6	2.5	1.6
0300	3.2	2.7	3.1	3.1		3.0	2.9	3.1	3.0	2.5	2.8	2.6	2.5	1.0
0430		3.4			3.5 3.6		2.9			2.5	3.0	2.5		
0600					3.0			3.1		2.6	3.2	2.3		1.6
0730		3.2				3.6		3.2		2.6	3.2		2.5	1.7
0900		3.1				3.5			2 6	2.8	3.3		2.6	1.7
1030	3.2			3.1		3.5		3.3	3.6 3.7	2.0	3.3		2.7	
1200	3.1			3.2			2.9	3.4	3.7				2.7	1.7
		2 1		3.2										1.8
1330 1500	3.0	3.1					3.0	3.4	3.7					1.9
1630				3.2		3.5	3.0	3.5	3.6		3.3			2.0
1800	2.8	3.0		3.3		3.4	3.1	3.5	3.5		3.2		2.7	2.4
1930		3.1		3.4		3.3	3.1	3.6	3.4		3.1		2.2	2.5
2100	2.6			3.5		3.2		3.0	3.1		3.0		1.8	2.5
2230	2.6			3.3		3.2			2.9		2.6		1.7	
		2 1	2 1	2 5	2 6	3.1	3.1	3.6	2.9	2.8	2.6	2.5	1.6	2.5
2400	2.7	3.1	3.1	3.5	3.6								1-23	
DATE TIME	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24
0130	2.4	2.7	2.6	2.6	1.8	2.4	2.0	1.9	1.9	1.9	2.6	1.7	1.8	1.6
0300	2.3	2.7	2.0					2.3		2.0				
0430	2.5	2.6						2.5		2.1				1.6
0600	2.3	2.6			1.8	2.4				2.1				1.7
0730	2.4	2.5			1.7	2.3				2.2				200
0900	2.7	2.4			1.,	1.9				2.2	2.6			
1030		2.4				1.8				2.3	2.7		1.8	
1200		2.5				1.8				2.4			1.7	1.7
1300		2.5		2.6	1.7	1.7	2.0						/	1.6
1500		2.4		2.7	1.8	1.6	1.9	2.5					1.7	
		4.4		2.6	1.9	1.0	1.8	2.4			2.7		1.6	
1630	2.6			2.5	2.0		1.6	2.2		2.4	2.6		1.0	
1800 1930	2.4			2.3	2.2		1.6	2.0		2.5	2.2			1.6
2100				2.1	2.2	1.6	1.7	1.9		2.5	1.9			1.5
2230	2.6			1.8	2.3	2.0	1.7	1.0		2.6	1.7			1.5
2400	2.6	2.4	2.6	1.8	2.4	2.0	1.6	1.9	1.9	2.6	1.7	1.7	1.6	1.5
2400	2.0	2.4	2.0	1.0	4.4	0	1.0	1.,	1.,	2.0	/			2

DATE	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7
TIME														
0130	1.4	1.3	0.4	1.1	1.4	1.2	0.8	0.9	1.4	1.0	1.0 1.2	1.3	1.3	1.3
0300 0430				1.4	1.3 1.3		0.7 0.6	0.9			1.2			
0600		1.3	0.4		1.2		0.0	1.0		1.0	1.3			
0730		1.4	0.5	1.4	1.2			1.0		0.8	1.5			
0900		1.5	0.6	1.5			0.6	1.1		0.7				
1030		1.0	0.7	1.5			0.8			•••				
1200			0.8	1.6			0.8	1.1		0.7				
1330	1.4	1.5		1.6			0.9	1.2		0.8				
1500	1.3	0.9		1.7		1.2		1.2		0.9				
1630		0.6				1.1		1.3						
1800		0.4	0.8			1.0		1.3						
1930			0.9					1.4	1.4					
2100			0.9	1.7		1.0			1.3					
2230 2400	1.3	0.4	1.0	1.6 1.5	1.2	0.9	0.9	1.4	1.2	0.9	1.3	1.3	1.3	1.3
			1.0											
DATE	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21
0130	1.3	1.6	1.6	1.6	0.6	0.4	0.5	0.6	0.5	0.1	0.1	0.1	0.1	0.1
0300					0.6	0.4								
0430					0.5	0.5								
0600														
0730	1.3													
0900	1.4			1.6			0.5		0.5					
1030				1.5			0.6		0.4					
1200 1330				1.5				0.6	0.3					
1500				1.4				0.5	0.2					
1630	1.4			1.1	0.5			0.5	0.1					
1800	1.5			0.9	0.4									
1930	1.5			0.7	•••									
2100	1.6													
2230				0.7										
2400	1.6	1.6	1.6	0.6	0.4	0.5	0.6	0.5	1.0	0.1	0.1	0.1	0.1	0.1
DATE	2-22	2-23	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6	3-7
TIME 0130	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
0300	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
0430														
0600														
0730														
0900														
1030														
1200														
1330														
1500														
1630														
1800														
1930 2100														
2230														
2400	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

LAKE HURON, STATION H-9, 15 m. continued.

L	AKE NU	KUN, S	TATION	н-9,	15 m.	contin	uea.							
DATE	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21
0130 0300 0430 0600	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0
0730 0900 1030 1200 1330 1500 1630 1800 1930 2100				0.1 0.2			0.2				0.1			
2230	0.1	0 1	0.1	0 0	0 0	0 0	0 1	0.1	0.1	0.1	0.0	0 0	0 0	0.0
2400	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
DATE	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4
0130 0300 0430 0600 0730 0900 1030 1200 1330 1500 1630 1800 1930 2100 2230 2400	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
DATE	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18
TIME 0130 0300 0430 0600	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5				
0730 0900 1030 1200 1330 1500 1630 1800 1930 2100 2230	0.1 0.5									0.5 End o Recor				
2400	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5					

LAKE HURON - STATION H-9, Depth 22 m. Start 2 November 1965, 0922 EST, end 14 April 1966, 0845 EST. Instrument serial no. 129. Initial cal. Indet., final cal.-0.2°C.

								,	11 10		11 10	11 10	11 1/	11 15
DATE TIME	11-2	11-3	11-4	11-5	11-6	11-7	11-8	11-9	11-10	11-11	11-12	11-13	11-14	11-15
0130		7.6	7.7	7.7	7.6	7.6	7.6	7.5	7.3	7.1	6.8	6.9	6.8	6.8
0300			7.6							7.0				
0430		7.6	7.6							6.9				
0600		7.7	7.7							6.9				
0730										6.8				
0900	7.2								7.3					6.8
1030	7.3								7.2					6.6
1200	7.4 7.4							7.5 7.4				6.9		
1330 1500	7.6	7.7						/ • •				6.8		
1630	,.0	7.6		7.7								•••		6.6
1800		7.7		7.6					7.2					6.8
1930									7.1		6.8			
2100							7.6				6.9			6.8
2230							7.5	- ,						6.7
2400	7.6	7.7	7.7	7.6	7.6	7.6	7.5	7.4	7.1	6.8	6.9	6.8	6.8	6.6
DATE	11-16	11-17	11-18	11-19	11-20	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28	11-29
TIME 0130	6.6	6.3	6.5	6.4	6.1	5.7	5.7	5.7	5.7	5.3	5.5	5.7	5.6	5.6
0300 0430	6.5	6.4	6.5								5.6	5.7		
0600 0730		6.6	6.4									5.6		
0900				6.4	6.1					5.3				
1030				6.3	6.0					5.4				
1200					5.9				5.7					
1330				6.3	5.8				5.6	5.4				
1500				6.2	5.8					5.5				5.6
1630					5.7									5.5
1800 1930											5.6 5.7			
2100	6.5								5.6		5.7			5.5
2230	6.4								5.4		5.6			5.4
2400	6.4	6.6	6.4	6.2	5.7	5.7	5.7	5.7	5.4	5.5	5.7	5.6	5.6	5.4
DATE	11-30	12-1	12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10	12-11	12-12	12-13
TIME														
0130	5.4	5.1	4.3	4.8	4.8	4.8	4.4	4.6	4.5	4.8	4.2	4.3	4.3	3.8
0300	5.5	5.2	4.4						4.2	4.8	4.2			
0430		5.5	4.6						3.8 3.8	4.7	4.3		4.3	3.8
0600 0730	5.5 5.4	5.6	4.7 4.8						4.0	4.5			4.2	3.9 3.9
0900	5.3		4.0			4.8			4.3	4.3			4.2	4.0
1030	5.2					4.7	4.4	4.6	4.6	4.1			4.1	4.1
1200	5.1						4.5	4.7		3.9			4.0	4.3
1330	5.0							4.5		4.0				
1500	5.2	5.6				4.7		4.3	4.6	4.1			4.0	4.3
1630	5.4	5.4				4.6	4.5	4.5	4.8	4.1			3.9	4.2
1800 1930	5.3 5.4	5.3 5.1				4.6	4.6 4.5	4.6 4.7		4.2				4.2
2100	5.5	4.9				4.5	4.4	4.4						4.2
2230	5.3	4.8				4.4	4.6	4.6						
2400	4.9	4.7	4.8	4.8	4.8	4.4	4.6	4.6	4.8	4.2	4.3	4.3	3.9	4.1

LAKE HURON, STATION H-9, 22 m. continued.

	L	AKE DU	KUN, S.	LALION	n-9,	22 m. i	COULTIN	ieu.							
DA'		12-14	12-15	12-16	12-17	12-18	12-19	12-20	12-21	12-22	12-23	12-24	12-25	12-26	12-27
TI															
013		4.1	4.3	4.3	4.0	3.9	3.7	3.7	3.5	3.8	4.2	3.8	3.8	2.9	3.2
030		4.0						3.7					3.7	3.0	
043		4.0						3.8						3.0	
060		3.9												3.1	
073		3.8					3.7						3.7	3.0	
090							3.6			3.8			3.5	2.9	
103		3.8				3.9		3.8		3.9			3.3	2.9	
120		3.9				3.8		3.6		4.0	4.2		3.4	3.2	
133		4.0			4.0				3.5	4.2	4.1		3.5		
150		4.1		4.3	3.9				3.6	4.3	4.0		3.6		
163		4.3		4.2	3.9			3.6	3.7		3.9		3.6		
180				4.1	3.8	3.8		3.7	3.8		3.8		3.7		3.2
19:				4.1		3.7		3.8		4.3	3.7		3.3		2.9
210				4.0				3.8		4.2			3.1		2.8
223								3.7					3.0		2.8
240	00	4.3	4.3	4.0	3.8	3.7	3.6	3.5	3.8	4.2	3.7	3.8	2.9	3.2	2.9
DA'		12-28	12-29	12-30	12-31	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10
TI		2 2	2 (2 /	2 2	2 (2.7	2.8	2 (2.6	1.6	2.7	3.0	3.2	2.7
01:		3.3	3.6	3.4	3.2	3.6	2.6	2.8	2.6	2.6	1.8	2.7	3.0		2.7
030		3.6		3.3	3.2		2.5	3.0		2.7	2.1		2.9	3.1	2.7
060		3.6 3.7			3.1		2.3	3.1		2.8	2.4		2.9	3.0	2.5
07:		3.7			3.3		2.5	3.2		2.8	2.4		2.8		2.3
09					3.3		2.7	3.3		2.9	2.5		2.0	3.0	2.1
103							2.8	3.3		2.9	2.5			3.1	1.8
120			3.6				2.9	3.3		2.9	2.6	2.7	2.8	3.0	1.0
13:			3.5		3.3		2.9	3.2		2.8	2.6	2.8	2.9	3.0	
150		3.7	5.5		3.4	3.6	2.8	3.1		2.7	2.7	2.9	3.0	3.0	
16:		3.8			J.4	3.5	2.0	3.0		2.3	2.7	3.0	3.1	2.9	1.8
180		3.0		3.3		3.4	2.8	2.8		2.0	2.8	3.2	3.2	2.8	1.7
19:			3.5	3.2	3.4	3.3	2.9	2.7		1.7	2.0	J	3.3		1.6
210			3.4	3.2	3.6	3.2	2.9	2.6				3.2	3.3		1.6
22			3.7		3.0	3.0	2.8			1.7	2.8	3.0			1.8
24		3.8	3.4	3.2	3.6	2.8	2.8	2.6	2.6	1.6	2.7	2.9	3.3	2.8	1.8
DA'		1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20	1-21	1-22	1-23	1-24
TI			1 14	1 10											
01:		2.0	1.5	1.8	1.9	2.6	1.8	2.7	2.0	1.9	1.8	2.0	1.4	0.6	1.8
03		2.1	1.8	1.7	1.9	2.5	1.9		1.8		1.9	2.0	1.5	0.8	1.9
04		2.3	1.8	1.6	1.8	2.3	2.0	2.7			1.9	1.8	1.6	0.9	2.1
06		2.5	2.0		1.5	2.0		2.8			2.0	1.8	1.7	0.9	2.1
07.		2.4	2.2	1.6	1.3	1.9	2.0				2.1	1.7	1.7	1.0	2.0
09		2.4		1.7	1.6	1.9	2.3				2.1	1.6	1.3	1.1	2.0
10		2.5		2.0	1.9	1.8	2.4				2.2	1.6	0.8	1.3	2.2
12		2.6	2.2	2.2	1.7		2.3	2.8		1.9	2.3	1.5	0.5	1 0	2.0
13		2.4	2.1		2.0		2.4	2.9		1.8	2.2	1.5	0.3	1.3	1.9
15		2.2		2.2	2.5		2.4	3.0	1 0		2.0	1.4	0.3	1.4	1.8
16		2.0	2.1	2.1	2.6		2.5	3.0	1.8		2.0		0.4	1.6	1.6
18		1.9	2.0	2.0	2.7	1.8	2.5	2.9	1.9		2.0 1.9	1.4	0.5	1.7 1.8	1.3
19		1.8	2.0		2 7	1.9	2.6	2.8			1.9	1.3	0.6	1.0	1.4
21		1 0	1.9	2.0	2.7		2.1	2.5			1.8	1.5	0.4		1.5
22 24		1.8	1.9 1.8	1.9	2.6	1.9	2.7	2.3	1.9	1.8	2.0	1.3	0.4	1.8	1.6
24	υU	1.4	T.0	1.9	2.0	1.7	2.1		1.0		2.0	1.0	0.4		

LAKE HURON, STATION H-9, 22 m. continued.

-		,		,										
DATE	1-25	1-26	1-27	1-28	1-29	1-30	1-31	2-1	2-2	2-3	2-4	2-5	2-6	2-7
TIME														
0130	1.6	1.1	1.0	1.5	1.1	1.3	1.4	1.3	1.3	2.0	2.1	2.0	1.3	0.3
0300	1.5		1.0	1.5	1.0	1.4	1.3			2.1			1.2	
0430	1.4	1.1	1.1	1.6	0.9	1.5	1.3				2.1		1.1	
0600	1.4	1.0		1.6	0.8	1.5	1.4				2.0	2.0	0.9	
0730	1.3	0.9		1.5		1.6	1.4		1.3		1.9	1.9	0.8	
0900	1.4	0.9	1.1	1.5			1.3		1.4				0.7	0.3
1030	1.5	0.8	1.2	1.4	0.8				1.5	2.1			0.4	0.4
1200	1.6	0.7	1.2	1.4	0.9				1.6	2.2				0.4
1330	1.0	0.8	1.3	1.3	•••					2.3		1.9		0.5
1500	1.6	0.0	1.4	1.3	0.9	1.6			1.6	2.2		1.8		0.5
1630	1.5		1.3	1.4	0.8	1.5			1.7	2.1		1.8		0.6
1800	1.4	0.8	1.1	1.4	0.8	1.5			1.8	2.2	1.9	1.7		0.7
1930	1.4	0.9	1.1	1.3	0.9				1.0	2.1	1.8	1.6	0.4	0.8
2100	1.3	1.0	1.1	1.2	1.0	1.5				2.0	1.9	1.5	0.3	0.0
				1.2		1.4			1.8		2.1	1.4	0.5	
2230	1.3	1.1	1.3	1 0	1.3		1 0	1 2		2.0			0 0	0.0
2400	1.2	1.1	1.4	1.2	1.3	1.4	1.3	1.3	1.9	2.1	2.0	1.3	0.3	0.8
DATE	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21
TIME 0130	0.8	0.7	0.8	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.3	0.3	0.3	0.4
0300			0.7											0.4
0430			0.6					0.1		0.2				0.5
0600			0.7					0.2	0.3	0.3				0.5
0730			0.6					0.3	0.4	0.2				0.6
0900		0.7	0.5							0.1				
1030		0.8	0.4							0.1				0.6
1200		0.0	0.3							0.2				0.7
1330			0.1							•••				•••
1500			***							0.2				
1630									0.4	0.3				0.7
1800									0.3	0.5				0.8
1930									0.5					0.0
2100	0.8													
2230	0.7													
2400	0.7	0.8	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.3	0.2	0.8
													0.3	
DATE	2-22	2-23	2-24	2-25	2-26	2-27	2-28	3-1	3-2	3-3	3-4	3-5	3-6	3-7
0130	0.8	0.6	0.5	0.8	0.3	0.4	0.6	0.7	0.6	0.3	0.3	0.3	0.0	0.0
0300	0.0	0.0	0.6	0.0	0.5	0.4	0.0	0.7	0.5	0.5	0.5	0.5	0.0	0.0
0430		0.6	0.0						0.5					
	0 0			0.0										
0600	0.8	0.5	0.6	0.8	0.3									
0730 0900	0.7	0.4	0.6	0.7	0.3				0.5					
		0.3	0.7	0.6	0.4				0.5			0.0		
1030		0 0	0.7	0.5					0.4			0.3		
1200	0.7	0.3	0.8	0.4								0.4		
1330	0.7	0.4		0.3								0.3		
1500	0.6											0.2		
1630	0 (0.4				0.4		0.7						
1800	0.6	0.5				0.5		0.6				0.2		
1930	0.7	0.6						0.6	0.4			0.1		
2100	0.6	0.6				0.5		0.5	0.3					
2230	0.6	0.8		0.0	0 /	0.6						0.1		
2400	0.6	0.4	0.8	0.3	0.4	0.6	0.6	0.5	0.3	0.3	0.3	0.0	0.0	0.0

LAKE HURON, STATION H-9, 22 m. continued.

	JIINI IIC	mon,	INITO	· 11-2,	22 m.	COLLET	iueu.							
DATE	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21
0130 0300	0.0	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2
0430														
0600														
0730 0900														
1030					0.1									0.2
1200					0.2						0.3			0.3
1330					0.2						0.2			
1500 1630					0.3									
1800														
1930	0.0													
2100 2230	0.0													
2400	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3
DATE	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	4-1	4-2	4-3	4-4
TIME 0130	0.0	0 /		0.5										
0300	0.3	0.4	0.4	0.5	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.6
0430				0.5					•••	0.4				
0600 0730				0.4						0.5				
0900										0.5				
1030								0.3		0.4			0.5	
1200 1330								0.4					0.6	
1500									0.5					
1630		0.4		0.4					0.6					
1800 1930		0.5	0.4	0.3					0.6					
2100			0.5						0.5					
2230									0.5					
2400	0.4	0.5	0.5	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.6	0.6
DATE	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18
0130 0300	0.6	0.6	0.6	0.6	0.8	8.0	0.8	0.8	0.8	0.9				
0430				0.6										
0600 0730	0.6			0.7						0.0				
0900	0.7								0.8	0.9 End o	f			
1030										Recor				
1200 1330														
1500														
1630														
1800 1930				0.7										
2100	0.7			0.8										
2230	0.6													
2400	0.6	0.6	0.6	0.8	0.8	0.8	0.8	0.8	0.9					